



# Parts Manual

**Engine**

**Diesel**

**L634T-A**



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# INTRODUCTION

To assist your Onan Dealer in giving you prompt and efficient replacement parts service, a Sales Option Code plate is part of your Onan nameplate and lists Sales Option Code numbers that identify factory installed parts unique to your engine. Corresponding Code numbers are listed at the top of each parts group and are used to determine correct replacement parts. To aid in identifying Sales Option Codes that apply to your engine, refer to the Model Specification Number to Option Code Table at the end of this manual.

Located at the rear of this parts manual are two separate sections covering service replacement parts for field installation kits. The first section lists service replacement parts for repower of General Motors and Ford applications. The second section lists service replacement parts for repower of United Parcel Service (UPS) application.

The diagonal line (/) in the model and specification number separates engine characteristics from the specification number and letter. The specification number denotes customer requested options. The specification letter advances (A to B, B to C, etc.) with major manufacturing changes. This letter designation, when used in the part description, also applies when ordering replacement parts. Left (non-accessory) and right (accessory) sides are determined by facing the rear or drive end (flywheel) of the engine.

Listed below are Sales Option Code Modifier numbers that may appear on your Onan nameplate. These code numbers have no direct service replaceable parts and only modify another related Sales Option Code number by identifying a distinctive feature(s). Parts that differ as a result of the modifier are identified in the parts description for that part.

- 15AJ (Fuel System for #2 Diesel Fuel)
- 15AK (Fuel System for Jet A or JP-5 Fuel)
- 15AL (Fuel System for JP-4 Fuel)
- 15AU (Bosch Injection Pump in place of Stanadyne Injection Pump)
- 23CB (No Belts)
- 23CC (No Belts or Alternator Pulley)
- 23CD (Double Pulley and Belts to Replace Single)
- 23CE (Single Pulley and Belts to Replace Double)
- 31AG (12 Volt System)
- 31AH (24 Volt System)
- 31AJ (32 Volt System)
- 35AJ (Fuel Solenoid - Energized to Run)
- 35AK (Fuel Solenoid - Energized to Run, Manual Override)
- 35AL (Fuel Solenoid - Energized to Shut Off, Manual Override)
- 45AA (Auxiliary Gear Drive)
- 45AT (Two Groove Crankshaft Pulley to Replace Single)
- 47 (Literature and Shipping Hardware)  
(Alpha letters after the number 47 are variable depending on model)  
(Sales Code 47 is not a modifier, however, there are no service replaceable parts)

Onan

Engine

Model No

Serial No

Rated RPM

Static Timing

Lube Oil Capacity

Fuel Diesel

Valve Lash

BTDC

Firing Order

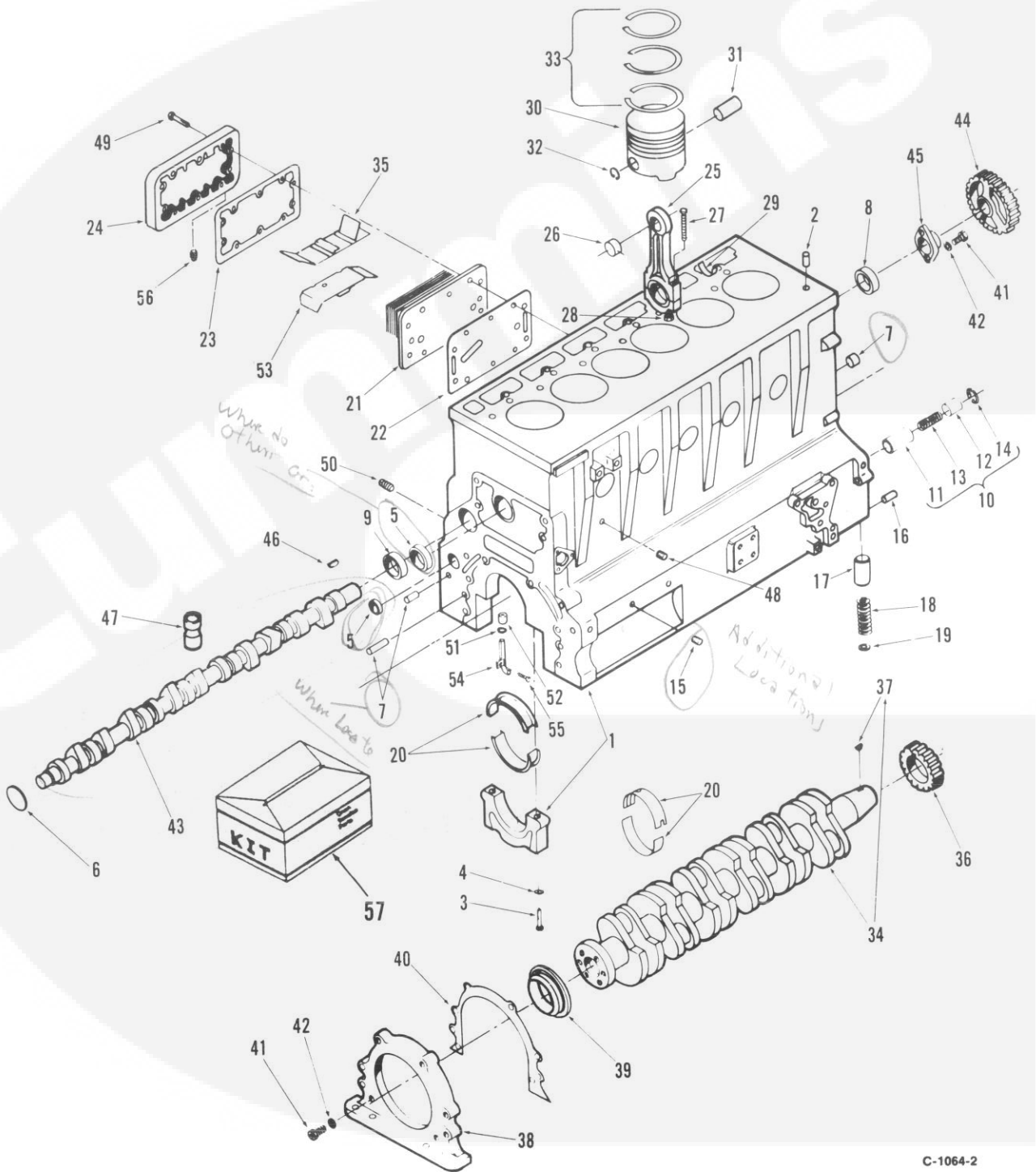
Onan Corporation Minneapolis Minnesota 55432 U.S.A.

Sales Option Codes

Made in U.S.A.

# CYLINDER BLOCK

Code 11AB (Premium)



Ward

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
33	RING KIT, PISTON		
			1984 Through 1987 Certified Engine
	113-0261	6	Standard
	113-0262	6	0.25 mm oversize
	113-0263	6	0.50 mm "
	113-0264	6	0.75 mm "
	113-0265	6	1.0 mm "
			1988 Certified Engine
	113-0277-01	6	Standard
	113-0277-02	6	0.25 mm oversize
	113-0277-03	6	0.50 mm "
	113-0277-04	6	0.75 mm "
	113-0277-05	6	1.0 mm "



ER 80654 change #33  
DA

## CYLINDER BLOCK

Code 11AB (Premium)

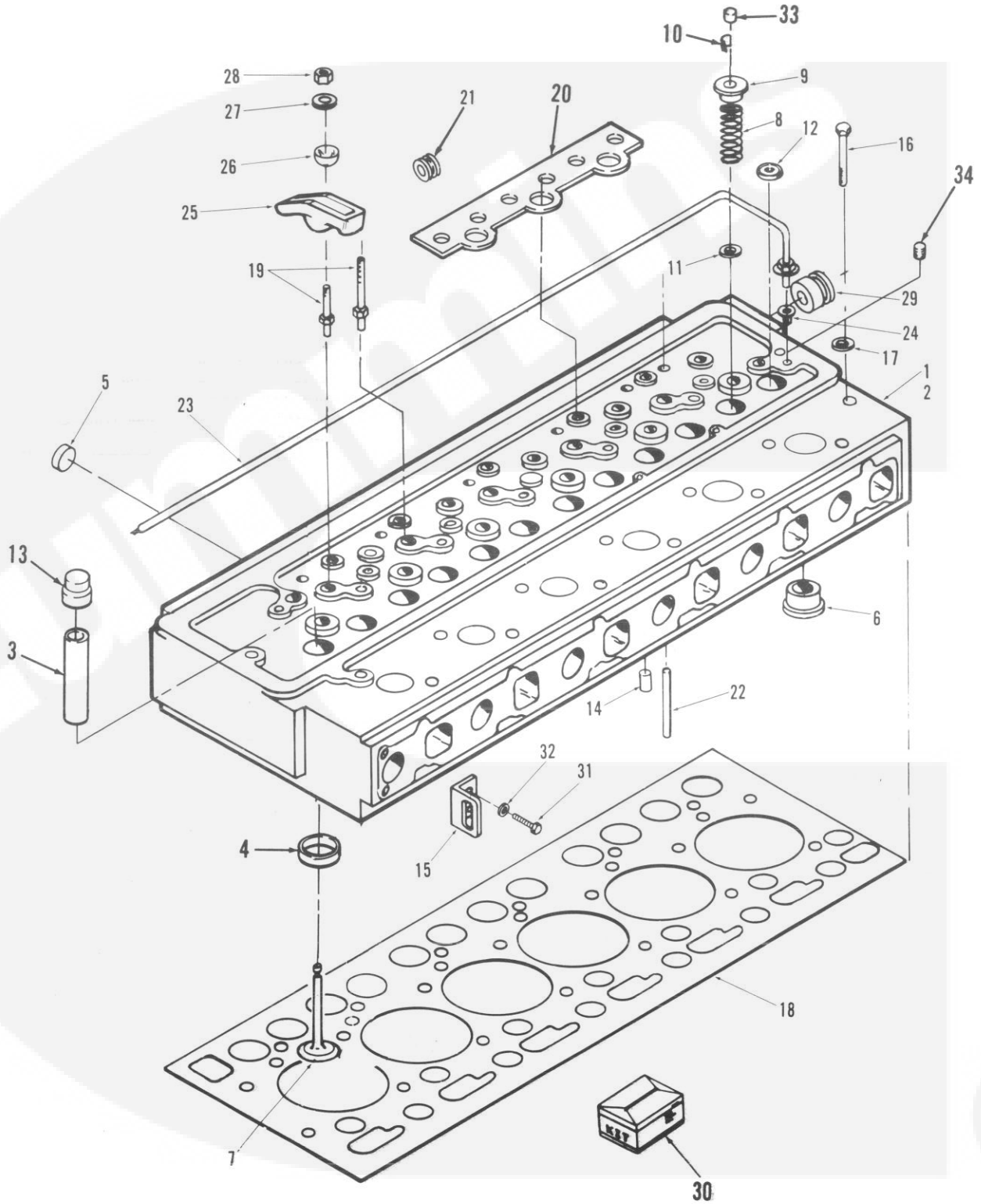
5100-0597  
5100-0717  
5100-0718  
5100-0888  
5100-1017

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	BLOCK ASSEMBLY, CYLINDER 110-3297	1	Spec B and C (Includes Parts Marked *)	28	114-0318	12	Nut, Connecting Rod
	110-	1	Spec D (Includes Parts Marked #)	29	114-0320	12	Bearing, Connecting Rod - Standard (Half)
2	110-2978	2	** Pin, Cylinder Head Alignment	30	PISTON AND PIN KIT (Includes Retaining Rings)		
3	720-1801	14	** Screw, Cap - Hex Head - Special	112-0221-01	6	Standard	
4	740-1801	14	** Washer, Flat - Special	112-0221-02	6	0.25 MM Oversize	
5	PLUG, CUP			112-0221-03	6	0.50 MM Oversize	
	517-0141	6	** 50.8 MM Stainless Steel	112-0221-04	6	0.75 MM Oversize	
	517-0144	2	** 12.7 MM Steel	112-0221-05	6	1.0 MM Oversize	
	517-0146	1	** 31.75 Stainless Steel	31	112-0165	6	Pin, Piston
	517-0184	2	** 5/8" Diameter Steel	32	518-0409	12	Ring, Retaining - Piston Pin
	517-0250	1	54.37 MM Stainless Steel (Oversize)	33	RING KIT, PISTON		
6	517-0140	1	** Plug, Welch (57.15 MM) - Steel	113-0261	6	Standard	
7	PIN, ALIGNMENT			113-0262	6	0.25 MM Oversize	
	775-0074	2	** 8 MM x 20 MM	113-0263	6	0.50 MM Oversize	
	775-0089	2	** 10 MM x 20 MM	113-0264	6	0.75 MM Oversize	
	775-0078	2	** 8 MM x 40 MM	113-0265	6	1.0 MM Oversize	
8	101-0511	1	** Bearing, Camshaft - Front	34	104-1576	1	Crankshaft and Gear (Includes Key)
9	BEARING, CAMSHAFT - Intermediate and Rear			35	BAFFLE, OIL COOLER - TOP		
	101-0471	6	*Spec B and C	102-1155	1	All Except Ford of Venezuela	
	101-0762	6	*Spec D	102-1167	1	Ford of Venezuela	
10	123-1613	1	** Valve Assembly, Pressure Relief (Includes Parts Marked+)	36	104-1138	1	Gear, Crankshaft
11	123-1515	1	+Body, Relief Valve	37	515-0245	1	Key - Crankshaft Gear
12	123-1514	1	+Piston, Relief Valve	38	101-0584	1	Plate, Rear Seal
13	123-1508	1	+Spring, Relief Valve	39	509-0203	1	Seal, Oil - Rear (Includes Wear Sleeve)
14	518-0410	1	+Ring, Retaining	40	101-0600	1	Gasket, Rear Seal Plate
15	PLUG, PIPE			41	718-1037	8	Screw, Cap - Hex Head (M8 x 25 MM)
			**Steel (1/4")	42	740-1006	8	Washer, Flat (M8)
	505-0180	7	Spec B and C	43	CAMSHAFT		
	505-0180	9	Spec D	105-0512	1	Spec B and C	
	505-0274	6	**Steel (1/8")	105-0642	1	Spec D	
16	516-2102	1	** Pin, Regulator Valve Spring	44	105-0515	1	Gear, Camshaft
17	123-1514	1	** Piston, Regulator Valve	45	105-0534	1	Retainer, Camshaft
18	123-1511	1	** Spring, Regulator Valve	46	515-0245	1	Key - Camshaft Gear
19	740-1004	1	** Washer, Flat (M6)	47	TAPPET		
20	BEARING KIT, MAIN (Includes Upper and Lower Bearing Half)			115-0275	12	Spec B and C	
	101-0689	1	Front (Standard)	115-0417	12	Spec D	
	101-0681	1	Center (Standard)	48	502-0775	1	** Plug, Pipe (3/8")
	101-0685	4	Intermediate (Except Center) (Standard)	49	SCREW, SOCKET HEAD		
	101-0677	1	Rear (Standard)	725-1061	10	All Except Ford of Venezuela (M8 x 80 MM)	
21	COOLER, OIL			725-1058	10	Ford of Venezuela (M8 x 60 MM)	
	102-1119-04	1	All Except Ford of Venezuela	50	505-0937	2	** Plug, Pressure (1/2-14)
	102-1119-03	1	Ford of Venezuela	51	509-0178	6	** Seal, O-Ring
22	102-0973	1	Gasket, Oil Cooler	52	110-3235	6	** Sleeve, Piston Cooling
23	102-0975	1	Gasket, Oil Cooler Cover	53	BAFFLE, OIL COOLER - BOTTOM		
24	COVER, OIL COOLER			102-1153	1	All Except Ford of Venezuela	
	102-1254	1	All Except Ford of Venezuela	102-1166	1	Ford of Venezuela	
	102-1131	1	Ford of Venezuela	54	110-3206	6	** Nozzle, Piston Cooling
25	114-0313	6	Rod, Connecting (Includes Finished Bearing, Bolts and Nuts)	55	815-0564	6	** Screw, Machine - But Head (M6 x 20 MM)
26	114-0316	6	Bushing, Connecting Rod (Semi Finished)	56	504-0028	1	Valve, Coolant Drain
27	114-0315	12	Bolt, Connecting Rod	57	168-0173	1	Gasket Kit, Lower End

\* - Parts Included in 110-3297 Cylinder Block Assembly.  
# - Parts Included in 110- Cylinder Block Assembly.  
+ - Parts Included in 123-1613 Pressure Relief Valve Assembly.

# CYLINDER HEAD

Code 11AB (Premium)



## CYLINDER HEAD

Code 11AB (Premium)

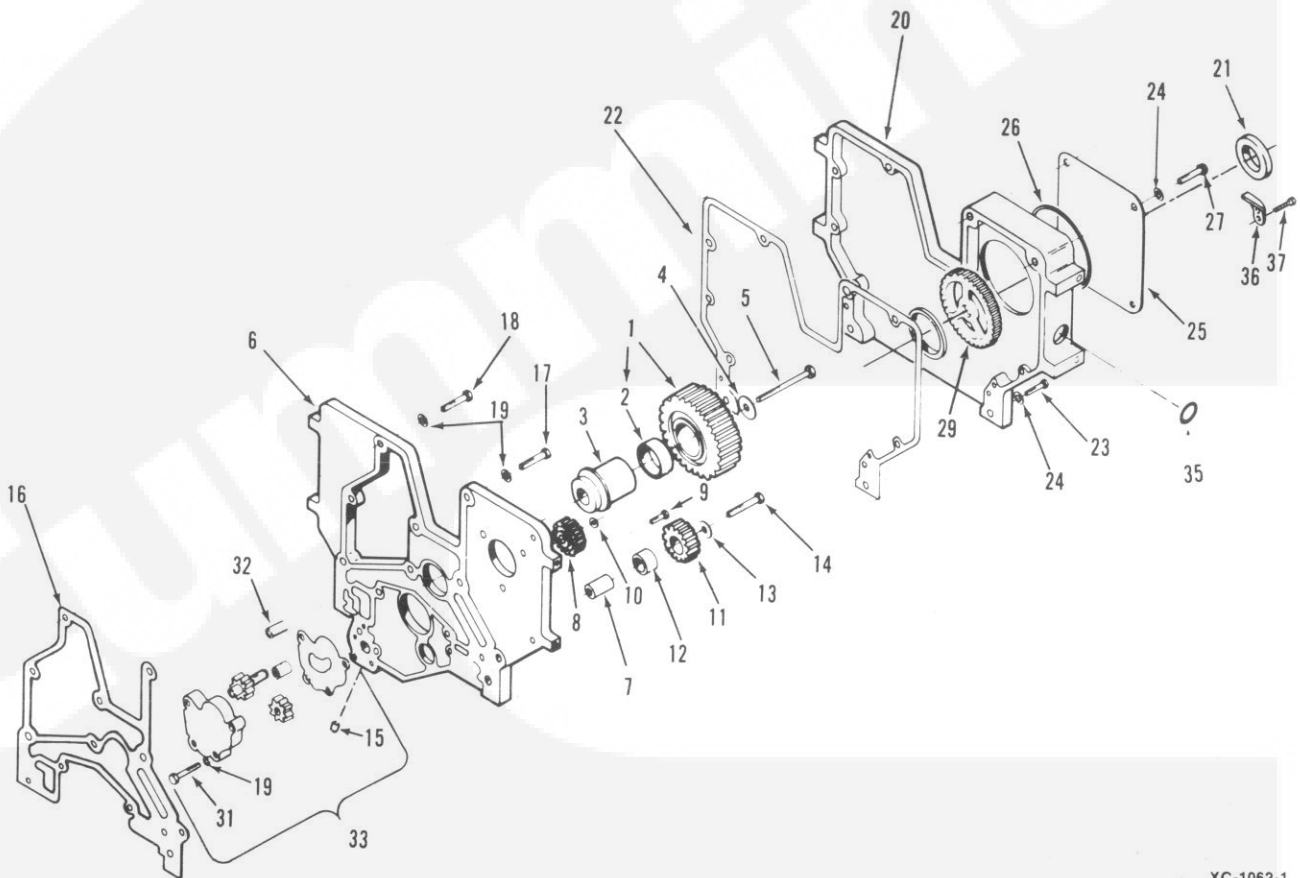
5100-0449  
5100-0726  
5100-0790  
5100-1018

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	110-3298	1	Head Assembly, Cylinder (Includes Valve Guides, Valve Seats, Valves, Springs, Cup Plugs, Rotators, Retainers, Water Pump Adapter, Collets, Wear Plates, Sleeves and Seals)	13	110-3228	12	Seal Assembly, Valve Stem
2	110-3455	1	Head, Cylinder (Includes Seats, Water Pump Adapter, Rotators and Guides)	14	110-2979	6	Sleeve, Sealing
3	GUIDE, VALVE (Semi Finished)			15	403-1875	2	Bracket, Lifting
	110-3495	6	Intake (Standard)	16	720-1802	26	Screw, Cap - Hex Head (M12 x 130 MM)
	110-3496	6	Exhaust (Standard)	17	740-1801	20	Washer, Flat (M12)
4	SEAT, VALVE			18	110-3225	1	Gasket, Cylinder Head
	110-2839	6	Intake Spec B (Standard) Begin Spec C	19	STUD, ROCKER ARM		
	110-3226-01	6	Standard		115-0204	6	Short
	110-3226-02	6	.25 MM Oversize		115-0270	6	Long
	110-3226-03	6	.50 MM Oversize	20	GUIDE, PUSH ROD		
	110-2781-01	6	Exhaust Standard		115-0313	3	Spec B and C
	110-2781-02	6	.25 MM Oversize		115-0388	2	Spec D
	110-2781-03	6	.50 MM Oversize	21	508-0228	3	Grommet - Spec B and C
5	PLUG, CUP			22	PUSH ROD		
	517-0142	11	38.1 MM		115-0253	12	Spec B and C
	517-0146	4	31.75 MM		115-0418	12	Spec D
	517-0162	6	19.05 MM	23	120-0920	1	Tube, Rocker Arm Oil - Spec B and C
6	110-3039	6	Plug, Hot (Swirl)	24	502-0003	1	Connector, Inverted Male - Spec B and C
7	VALVE			25	115-0316	12	Arm, Rocker
	110-3218	6	Intake	26	BALL, ROCKER ARM		
	110-3260	6	Exhaust		115-0202	12	Spec B and C
8	110-3300	12	Spring, Valve		115-0202-02	12	Spec D
9	110-3015	12	Retainer, Valve Spring	27	526-2119	12	Washer, Flat
10	110-2752	24	Collet, Valve Lock	28	115-0315	12	Locknut, Rocker Arm
11	PLATE, VALVE SPRING WEAR			29	ADAPTER, WATER PUMP		
	110-2991	12	Spec B		110-3045	1	Standard
	110-2991	6	Spec C Through Early Portion of Spec D (Exhaust)		110-3490	1	0.5 MM Oversize
12	ROTATOR, VALVE (NOTE: Intake and exhaust valve rotators are included with all replacement cylinder heads)			30	168-0174	1	Gasket Kit, Valve Grind
	110-3326	6	Spec C Through Early Portion of Spec D (Intake)	31	718-1053	4	Screw, Cap - Hex Head (M10 x 20 MM)
	110-3326	12	Use Began During Later Portion of Spec D (Intake and Exhaust)	32	740-1008	4	Washer, Flat (M10)
				33	110-3245	12	Cap, Valve Stem
				34	502-0028	1	Plug, Pipe (1/8") Spec D



# GEARCASE

Code 11AB (Premium)



XC-1062-1

# GEARCASE

Code 11AB (Premium)

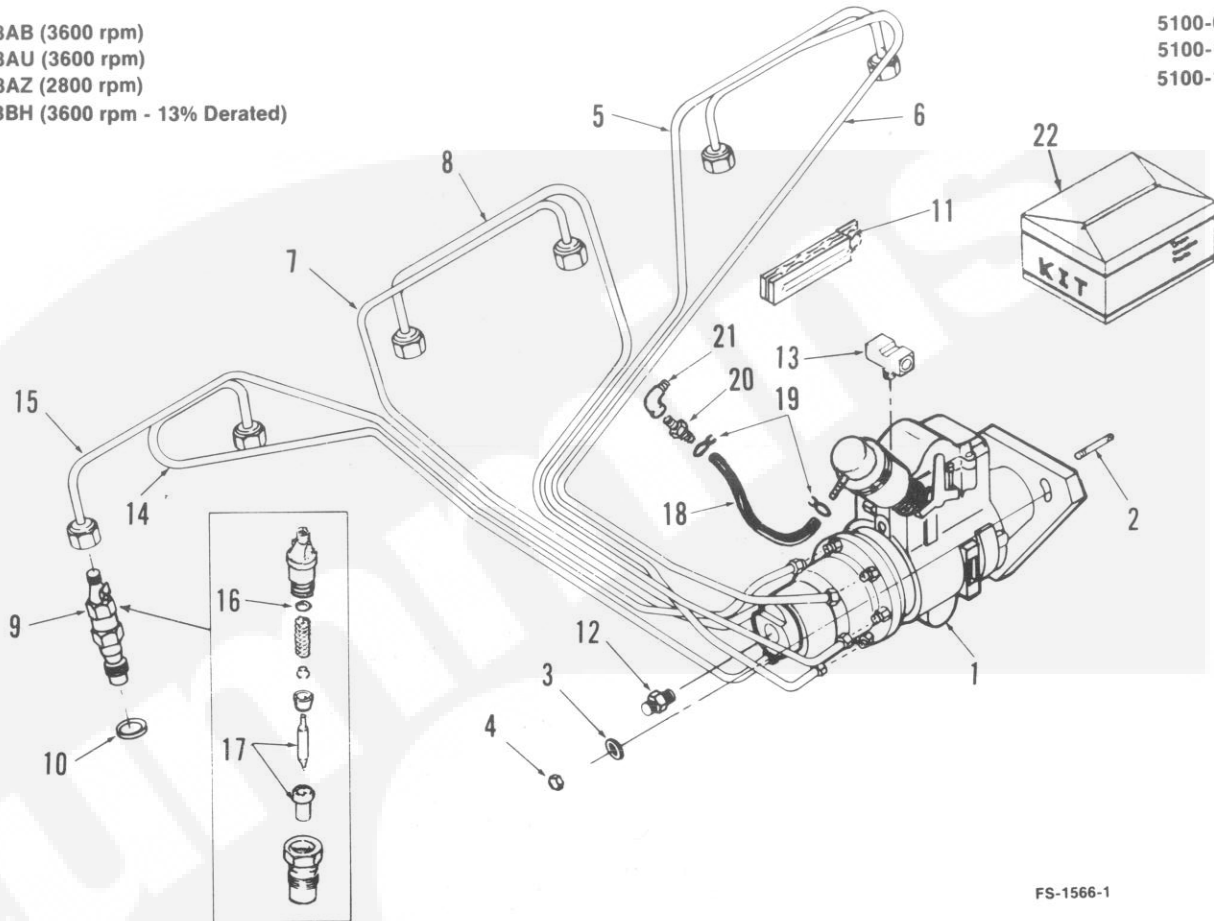
5100-0380  
5100-0727  
5100-0868  
5100-0979

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	105-0513	1	Gear, Idler (Includes Finished Bearing)
2	105-0519	1	Bearing, Idler Gear (Semi Finished)
3	105-0508	1	Shaft, Idler Gear
4	526-2127	1	Washer, Flat (M10)
5	718-1064	1	Screw, Cap - Hex Head (M10 x 75 MM)
6	BACKPLATE, GEARCASE		
	103-0716	1	1984 Certified Engine
	103-0716-01	1	1985 through 1987 Certified Engine
7	120-0983	1	Shaft, Oil Pump Idler Gear
8	120-0885	1	Gear, Oil Pump Drive
9	718-1035	1	Screw, Cap - Hex Head (M8 x 16 MM)
10	526-2106	1	Washer, Flat
11	120-1063	1	Gear, Oil Pump Idler (Includes Finished Bearing)
12	120-1041	1	Bearing, Oil Pump Idler Gear (Semi Finished)
13	526-2107	1	Washer, Flat
14	718-1035	1	Screw, Cap - Hex Head (M8 x 16 MM)
15	725-1802	1	Screw, Hex Socket Set (M16 x 16 MM)
16	103-0733	1	Gasket, Gearcase Backplate
17	SCREW, CAP - HEX HEAD		
	718-1037	1	M8 x 25 MM
	718-1039	1	M8 x 35 MM
18	725-1801	2	Screw, Low Socket Head Cap (M8 x 16 MM)
19	740-1006	7	Washer, Flat (M8)
20	103-0744	1	Gearcase (Includes Oil Seal and Cap Plug)
21	509-0191	1	Seal, Oil (Includes Wear Sleeve)
22	103-0731	1	Gasket, Gearcase
23	SCREW, CAP - HEX HEAD		
	718-1046	2	M8 x 70 MM
	718-1085	4	M12 x 85 MM
	718-1043	2	M8 x 55 MM
24	WASHER, FLAT		
			M8 (Injection Pump Gear Cover)
	740-1006	4	1984 Certified Engine
	740-1006	3	1985 through 1987 Certified Engine
	740-1010	4	M12
25	103-0735	1	Cover, Injection Pump Gear
26	509-0263	1	Seal, O-Ring
27	SCREW, CAP - HEX HEAD		
	718-1048	1	M8 x 80 MM
	718-1044	2	M8 x 60 MM
	718-1036	1	M8 x 20 MM
29	147-0427	1	Gear, Injection Pump
31	718-1044	2	Screw, Cap - Hex Head (M8 x 60 MM)
32	120-0979	1	Bearing, Oil Pump Drive Shaft
33	120-1091	1	Pump Kit, Oil (Includes Drive Shaft Bearing)
35	517-0188	1	Plug, Cap
36	103-0750	1	Plate, Timing (Use began during Spec B)
37	815-0578	2	Screw, Cap - Hex Head (M6 x 14 MM) (Use began during Spec B)

## FUEL INJECTION (1984 CERTIFIED ENGINE)

Code 13AB (3600 rpm)  
Code 13AU (3600 rpm)  
Code 13AZ (2800 rpm)  
Code 13BH (3600 rpm - 13% Derated)

5100-0599  
5100-1065  
5100-1138

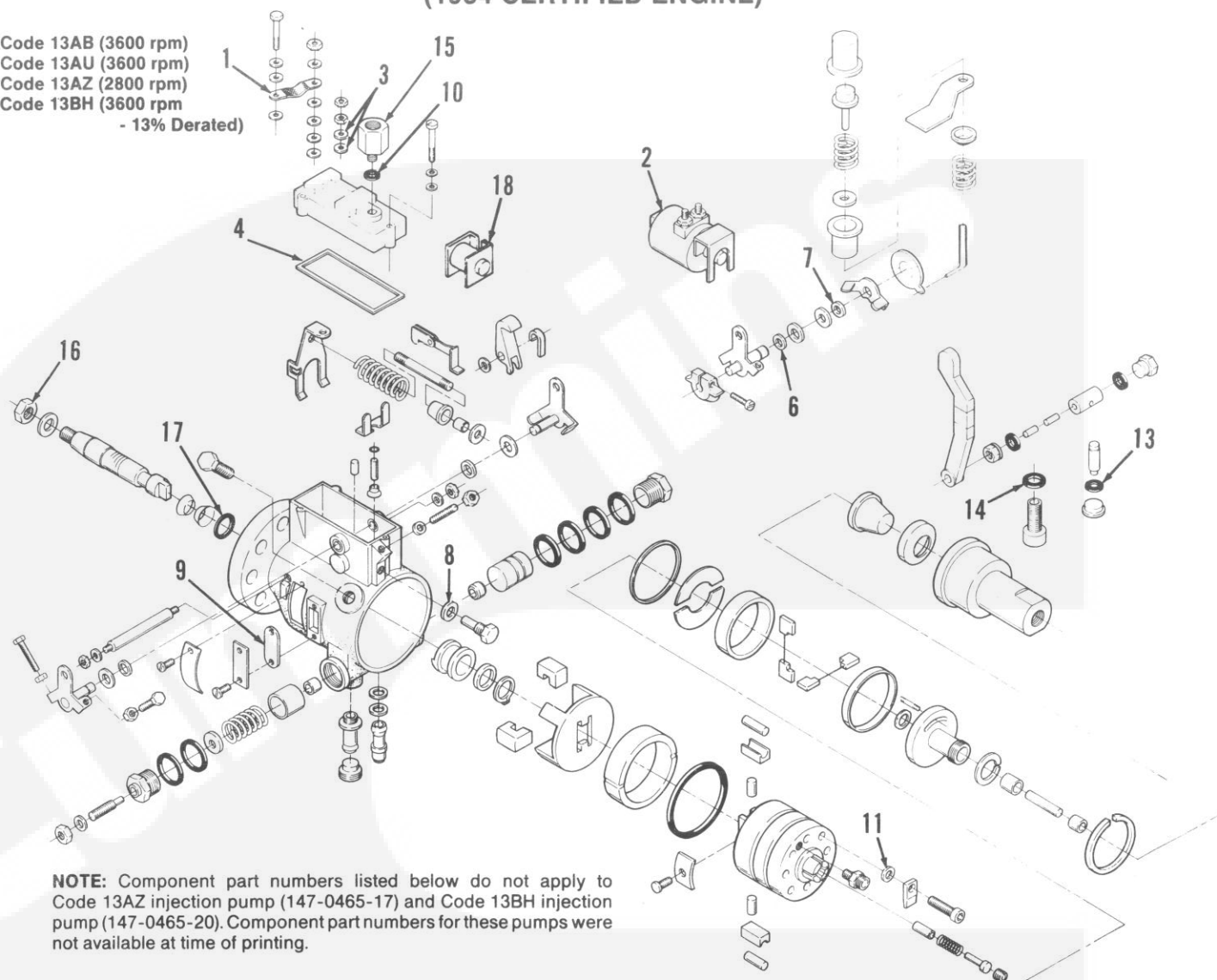


FS-1566-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	PUMP, FUEL INJECTION (See Separate Group for Components)						
	147-0465-13	1	Code 13AB, 13AU	147-0624	As Req.	1.08 MM	
	147-0465-17	1	Code 13AZ	147-0625	As Req.	1.12 MM	
	147-0465-20	1	Code 13BH	147-0626	As Req.	1.16 MM	
2	520-2403	3	Stud, Injection Pump (M8)	147-0627	As Req.	1.20 MM	
3	526-2106	3	Washer, Flat (M8)	147-0628	As Req.	1.24 MM	
4	750-1006	3	Nut, Hex (M8)	147-0629	As Req.	1.28 MM	
5	147-0666	1	Line, Fuel Injection (No. 1)	147-0630	As Req.	1.32 MM	
6	147-0667	1	Line, Fuel Injection (No. 2)	147-0631	As Req.	1.36 MM	
7	147-0668	1	Line, Fuel Injection (No. 3)	147-0632	As Req.	1.40 MM	
8	147-0669	1	Line, Fuel Injection (No. 4)	147-0633	As Req.	1.44 MM	
9	147-0701	6	Injector, Fuel (Includes Seal)	147-0634	As Req.	1.48 MM	
10	147-0436	6	Seal, Injector	147-0635	As Req.	1.52 MM	
11	CLAMP, FUEL LINE			147-0636	As Req.	1.56 MM	
	147-0672	3	Clamps Two Lines	147-0637	As Req.	1.60 MM	
	147-0673	2	Clamps Three Lines	147-0638	As Req.	1.64 MM	
	147-0674	1	Clamps Six Lines	147-0639	As Req.	1.68 MM	
12	502-0733	1	Connector	147-0640	As Req.	1.72 MM	
13	502-0057	1	Tee, Pipe - Special	147-0641	As Req.	1.76 MM	
14	147-0670	1	Line, Fuel Injection (No. 5)	147-0642	As Req.	1.80 MM	
15	147-0671	1	Line, Fuel Injection (No. 6)	147-0643	As Req.	1.84 MM	
16	WASHER, INJECTION NOZZLE SHIM			147-0644	As Req.	1.88 MM	
	147-0617	As Req.	0.80 MM	147-0645	As Req.	1.92 MM	
	147-0618	As Req.	0.84 MM	147-0646	As Req.	1.96 MM	
	147-0619	As Req.	0.88 MM	17	147-0647	6	Tip, Nozzle
	147-0620	As Req.	0.92 MM	18	503-1271	1	Line, Aneroid
	147-0621	As Req.	0.96 MM	19	503-0301	2	Clamp, Hose
	147-0622	As Req.	1.00 MM	20	502-0877	1	Fitting, Hose (Barbed)
	147-0623	As Req.	1.04 MM	21	502-0053	1	Elbow, Street (45°)
				22	147-0771	1	Kit, Aneroid

## FUEL INJECTION PUMP COMPONENTS (1984 CERTIFIED ENGINE)

Code 13AB (3600 rpm)  
Code 13AU (3600 rpm)  
Code 13AZ (2800 rpm)  
Code 13BH (3600 rpm  
- 13% Derated)



**NOTE:** Component part numbers listed below do not apply to Code 13AZ injection pump (147-0465-17) and Code 13BH injection pump (147-0465-20). Component part numbers for these pumps were not available at time of printing.

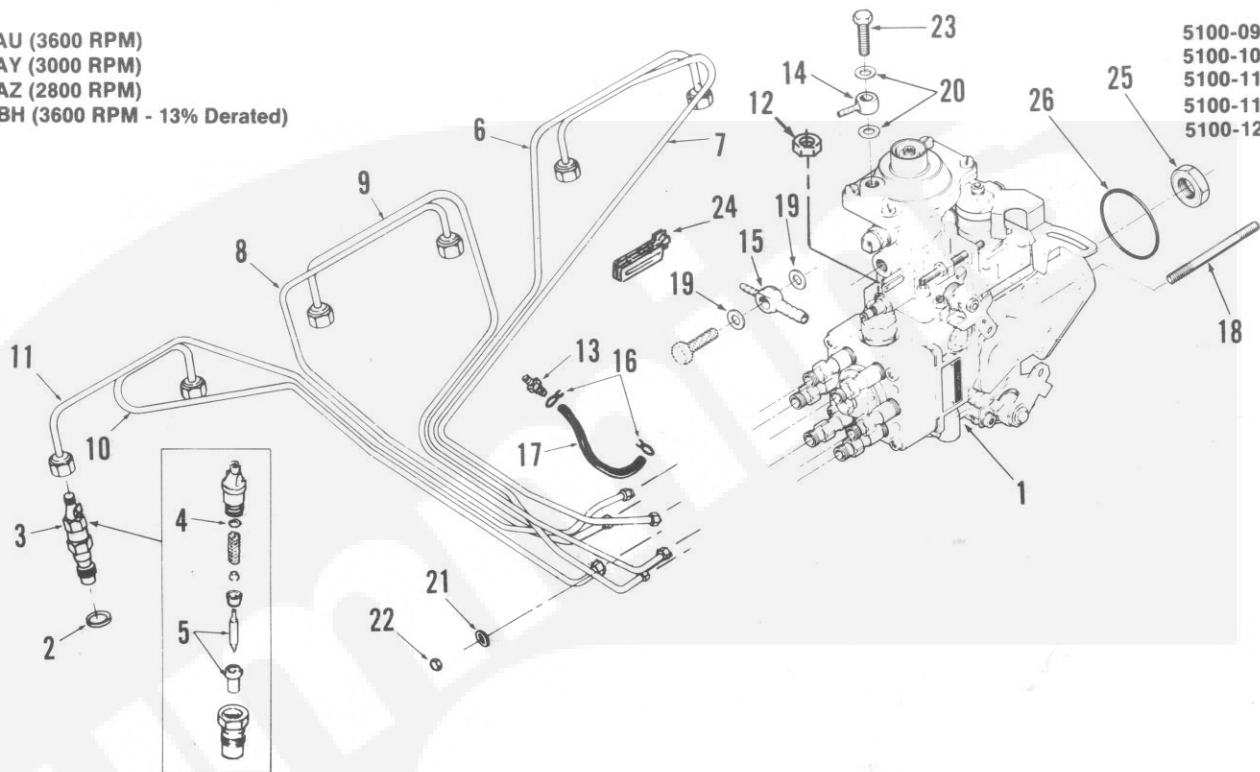
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	PUMP, FUEL INJECTION (Complete)		
	147-0465-13	1	Code 13AB, 13AU
	147-0465-17	1	Code 13AZ
	147-0465-20	1	Code 13BH
1	147-0592	1	Strap, Terminal Grounding
2	147-0706	1	Coil Arm and Solenoid Assembly, Shutdown
3	147-0591	2	Washer, Terminal Insulating
4	147-0590	1	Gasket, Governor Cover
6	147-0588	2	Seal, Throttle Shaft
7	147-0587	1	Washer, Throttle Shaft Seal
8	147-0747	1	Washer, Guide Stud
9	147-0585	1	Gasket, Timing Cover
10	147-0584	1	Seal, Return Line Connector
11	147-0583	1	Seal, Locking Plate
13	147-0581	1	Seal, Advance Screw Hole Plug
14	147-0580	1	Seal, Head Locating Screw
15	147-0728	1	Connector, Return Line
16	147-0578	1	Nut, Drive Shaft
17	509-0265	1	Seal, Pilot Tube
18	147-0748	1	Solenoid (Cold Advance)

**NOTE:** For component parts not listed contact manufacturer shown on nameplate.

## FUEL INJECTION (1985 THROUGH 1987 CERTIFIED ENGINES)

Code 13AU (3600 RPM)  
Code 13AY (3000 RPM)  
Code 13AZ (2800 RPM)  
Code 13BH (3600 RPM - 13% Derated)

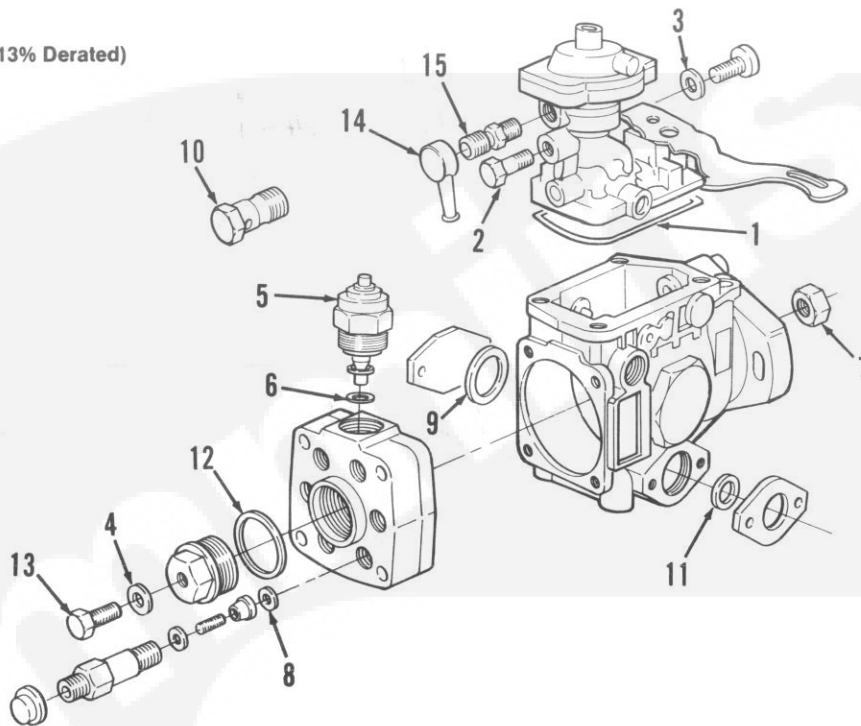
5100-0980  
5100-1079  
5100-1123  
5100-1184  
5100-1237



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	PUMP, FUEL INJECTION (Includes Hollow Screw for Fuel Return) (See Separate Group for Components)			147-0637	As Req.	1.60 MM	
	147-0465-15	1	Code 13AU	147-0638	As Req.	1.64 MM	
			Code 13AZ	147-0639	As Req.	1.68 MM	
	147-0465-16	1	1985, 1986 Certified Engines	147-0640	As Req.	1.72 MM	
	147-0465-19	1	1987 Certified Engine	147-0641	As Req.	1.76 MM	
	147-0465-21	1	Code 13AY	147-0642	As Req.	1.80 MM	
	147-0465-18	1	Code 13BH	147-0643	As Req.	1.84 MM	
2	147-0436	6	Seal, Injector	147-0644	As Req.	1.88 MM	
3	INJECTOR, FUEL			147-0645	As Req.	1.92 MM	
	147-0701	6	1985, 1986 Certified Engines (Includes Seal)	147-0646	As Req.	1.96 MM	
			1987 Certified Engine	5	147-0647	6	Tip, Nozzle
	147-0701	6	Code 13AU, 13BH (Includes Seal)	6	147-0750-01	1	Line, Fuel Injection (No. 1)
	147-0723-02	6	Code 13AY, 13AZ	7	147-0750-02	1	Line, Fuel Injection (No. 2)
4	WASHER, INJECTION NOZZLE SHIM			8	147-0750-03	1	Line, Fuel Injection (No. 3)
	147-0617	As Req.	0.80 MM	9	147-0750-04	1	Line, Fuel Injection (No. 4)
	147-0618	As Req.	0.84 MM	10	147-0750-05	1	Line, Fuel Injection (No. 5)
	147-0619	As Req.	0.88 MM	11	147-0750-06	1	Line, Fuel Injection (No. 6)
	147-0620	As Req.	0.92 MM	12	750-1002	1	Nut, Hex (M5)
	147-0621	As Req.	0.96 MM				Electrical Shutoff Stud
	147-0622	As Req.	1.00 MM	13	502-0877	1	Fitting, Hose (Barbed)
	147-0623	As Req.	1.04 MM	14	502-0954	1	Fitting, Barbed
	147-0624	As Req.	1.08 MM	15	502-0983	1	Fitting, Banjo (Double Barbed)
	147-0625	As Req.	1.12 MM	16	503-0765	2	Clamp, Hose
	147-0626	As Req.	1.16 MM	17	503-1271	1	Line, Aneroid
	147-0627	As Req.	1.20 MM	18	520-2403	3	Stud, Injection Pump (M8)
	147-0628	As Req.	1.24 MM	19	147-0356	2	Washer, Hollow Screw Mounting (M12)
	147-0629	As Req.	1.28 MM				Washer, Hollow Screw Mounting (M8)
	147-0630	As Req.	1.32 MM	20	147-0357	2	Washer, Hollow Screw Mounting (M8)
	147-0631	As Req.	1.36 MM	21	526-2106	3	Washer, Flat (M8)
	147-0632	As Req.	1.40 MM	22	750-1006	3	Nut, Hex (M8)
	147-0633	As Req.	1.44 MM	23	147-0745	1	Screw, Hollow (M8)
	147-0634	As Req.	1.48 MM	24	CLAMP, FUEL LINE		
	147-0635	As Req.	1.52 MM		147-0672	3	Clamps Two Lines
	147-0636	As Req.	1.56 MM		147-0673	2	Clamps Three Lines
					147-0674	1	Clamps Six Lines
				25	147-0578	1	Nut, Thin Hex (Injection Pump Gear Mounting)
				26	509-0215	1	O-Ring

## FUEL INJECTION PUMP COMPONENTS (1985 THROUGH 1987 CERTIFIED ENGINES)

Code 13AU (3600 RPM)  
Code 13AY (3000 RPM)  
Code 13AZ (2800 RPM)  
Code 13BH (3600 RPM - 13% Derated)

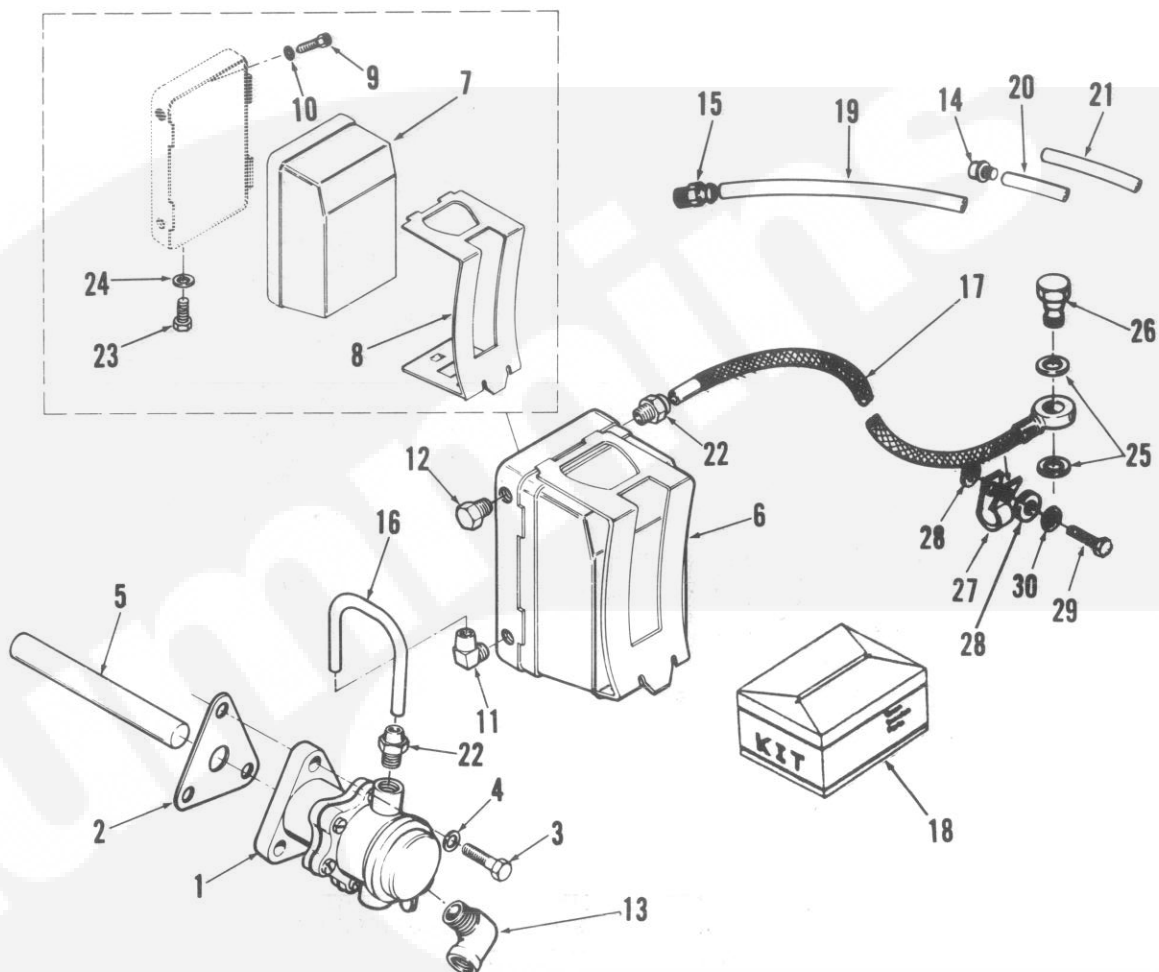


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	PUMP, FUEL INJECTION (Complete)		
	147-0465-15	1	Code 13AU Code 13AZ
	147-0465-16	1	1985, 1986 Certified Engines
	147-0465-19	1	1987 Certified Engine
	147-0465-21	1	Code 13AY
	147-0465-18	1	Code 13BH
1	147-0782	1	Gasket, Cover - Injection Pump
2	147-0775	1	Screw, Outlet - Return Connector (M12)
3	147-0781	4	Washer, Copper - M12
4	147-0773	2	Washer, Copper - M8
5	147-0789	1	Solenoid
6	147-0786	1	Seal, O-Ring - Solenoid
7	147-0788	1	Nut, Hex - Drive Shaft (M14)
8	147-0785	6	Washer, Valve - Delivery
9	147-0787	2	Seal, O-Ring
10	147-0746	1	Screw (M12) Inlet Fitting
11	147-0783	1	Seal, O-Ring
12	147-0784	1	Seal, O-Ring - Screw Plug
13	147-0772	1	Screw, Bleeder (M8)
14	147-0774	1	Boot, Vent - Aneroid
15	147-0776	1	Screw, Vent - Air Breather

## FUEL SYSTEM

Code 15AA (Low Pressure)  
Code 15AM (Low Pressure)

5100-0636  
5100-0977



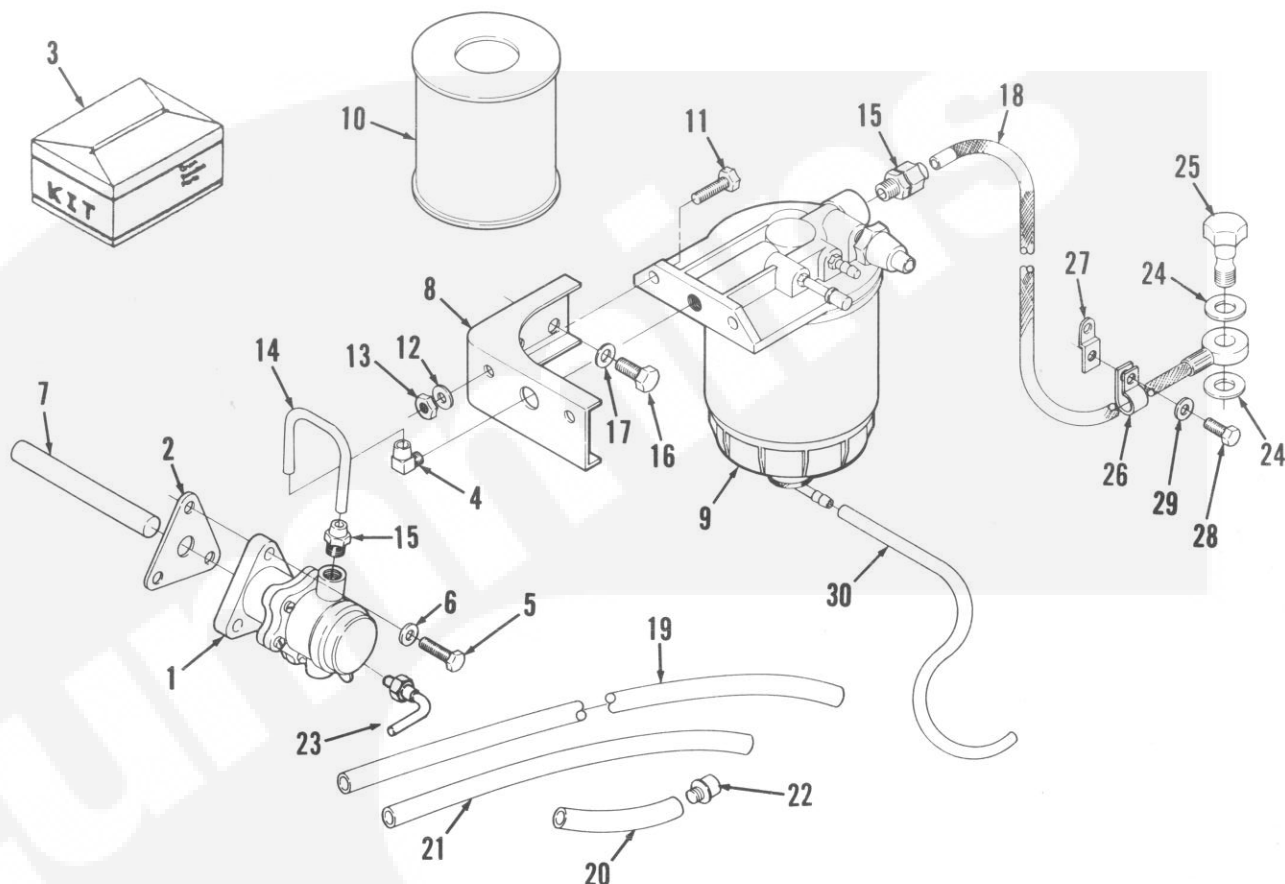
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	149-2068	1	Pump Kit, Fuel Transfer (Includes Mounting Gasket)
2	149-1728	1	Gasket, Fuel Transfer Pump
3	718-1021	3	Screw, Cap - Hex Head (M6 x 20 MM)
4	740-1004	3	Washer, Flat (M6)
5	149-1732	1	Pushrod, Fuel Transfer Pump
6	149-1803	1	Filter Assembly (Includes Filter, Base, and Clamp)
7	149-1802	1	Filter Only, Fuel
8	149-1801	1	Clamp, Fuel Filter
9	725-1074	2	Screw, Cap - Socket Head (M10 x 20 MM)
10	740-1008	2	Washer, Flat (M10)
11	502-0774	1	Elbow, Flareless Tube Fitting (Includes Nut and Sleeve)
12	502-0153	2	Plug
13	502-0054	1	Elbow, Pipe
14	502-0736	1	Plug
15	502-0738	1	Connector, Male
16	149-2002	1	Line, Fuel
17	LINE, FUEL		
	149-1796	1	1984 Certified Engine
	501-0510-01	1	1985 through 1987 Certified Engine

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
18	149-2069	1	Repair Package, Fuel Transfer Pump
19	503-1055	1	Line, Fuel Return (Flexible) 380 MM Long
20	503-1054	1	Line, Fuel Return (Flexible) 25 MM Long
21	503-1053	5	Line, Fuel Return (Flexible) 180 MM Long
22	502-0773	2	Connector, Flareless Tube Fitting (Includes Nut and Sleeve)
23	149-1835	1	Plug, Filter Drain
24	149-1836	1	Gasket, Filter Drain Plug
25	147-0356	2	Washer, Hollow Screw Mounting - Begin 1985 Certified Engine
26	147-0746	1	Screw, Hollow - Begin 1985 Certified Engine
27	518-0514	1	Clamp, Fuel Line - Begin 1985 Certified Engine
28	526-0174	2	Washer, Flat - Special - Begin 1985 Certified Engine
29	718-1054	1	Screw, Cap - Hex Head (M10 x 25 MM) Begin 1985 Certified Engine
30	740-1008	1	Washer, Flat (M10) Begin 1985 Certified Engine

# FUEL SYSTEM

Code 15BT (Low Pressure, with Water Separator)

5100-1197



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	149-2068	1	Kit, Pump - Fuel Transfer (Includes Mounting Gasket)
2	149-2060	1	Gasket, Fuel Transfer Pump
3	149-2069	1	Repair Package, Fuel Transfer Pump
4	502-0774	1	Elbow, Flareless Tube Fitting (Includes Nut and Sleeve)
5	718-1021	3	Screw, Cap - Hex Head (M6 x 20 MM)
6	740-1004	3	Washer, Flat (M6)
7	149-1732	1	Pushrod, Fuel Transfer Pump
8	149-2128	1	Bracket, Mounting - Water Separator
9	149-2127	1	Separator, Water (Includes Element)
10	149-1914-04	1	Element, Water Separator
11	718-1055	2	Screw, Cap - Hex Head (M10 x 30 MM)
12	740-1008	2	Washer, Flat (M10)
13	750-1008	2	Nut, Hex (M10)
14	149-2129	1	Line, Fuel

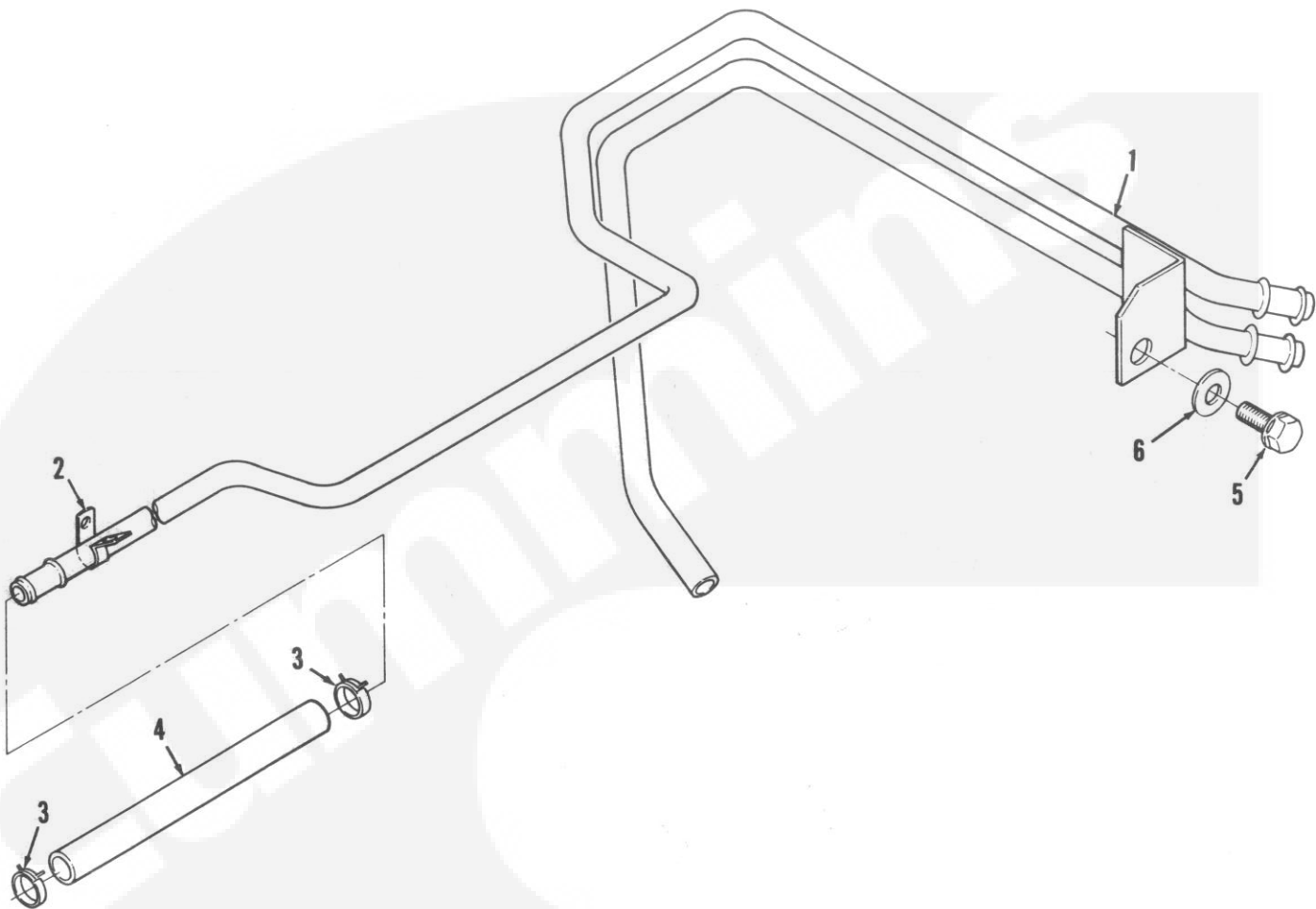
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
15	502-0773	2	Connector, Flareless Tube Fitting (Includes Nut and Sleeve)
16	718-1053	2	Screw, Cap - Hex Head (M10 x 20 MM)
17	740-1008	2	Washer, Flat (M10)
18	501-0510-01	1	Line, Fuel
19	503-1055	1	Line, Fuel Return (Flexible) 380 MM Long
20	503-1054	1	Line, Fuel Return (Flexible) 25 MM Long
21	503-1053	5	Line, Fuel Return (Flexible) 180 MM Long
22	502-0736	1	Plug
23	502-1058	1	Elbow, Flareless Tube (Includes Sleeve and Nut)
24	147-0781	2	Washer, Hollow Screw Mounting
25	147-0746	1	Screw, Hollow
26	518-0514	1	Clamp, Fuel Line
27	149-2138	1	Bracket, Fuel Line
28	718-1036	1	Screw, Cap - Hex Head (M8 x 20 MM)
29	740-1006	1	Washer, Flat (M8)
30	503-1612	1	Hose, Drain (3/16" ID x 11")



FUEL LINE

Code 15BV (Ford)

5100-1205



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	159-1183	1	Line, Fuel - Fuel Tank Supply/Return (Hard Lines - Block Mounted)
2	518-0514	1	Clamp, Support
3	503-1445-03	2	Clamp, Hose - Fuel Return
4	503-1609-02	1	Hose, Fuel Line - Fuel Return (5/16" ID x 120 MM)
5	718-1053	1	Screw, Cap - Hex Head (M10 x 20 MM)
6	740-1008	1	Washer, Flat (M10)

## OIL PAN

Code 17AA (20° Tilt - Drain to Accessory Side)

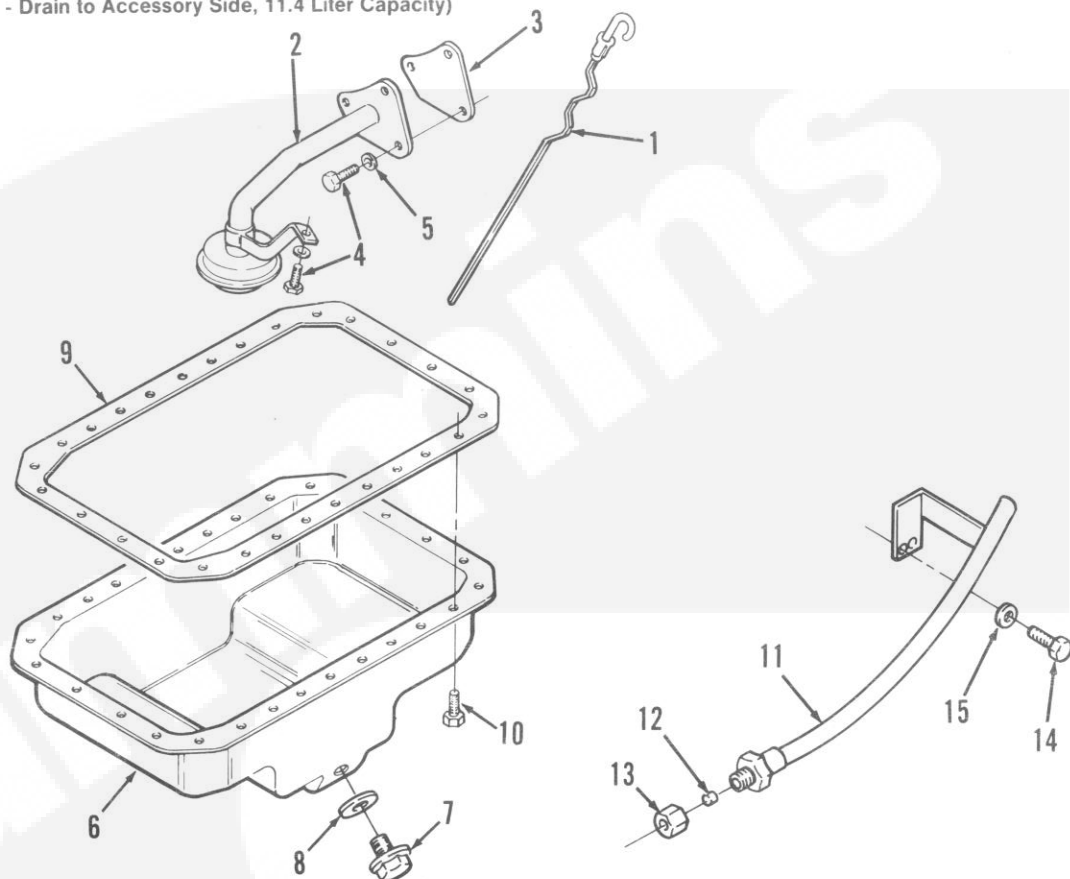
Code 17AE (20° Tilt - Drain to Rear, 11.4 Liter Capacity)

Code 17CL (20° Tilt - Drain to Accessory Side, 11.4 Liter Capacity)

5100-0587

5100-1087

5100-1174

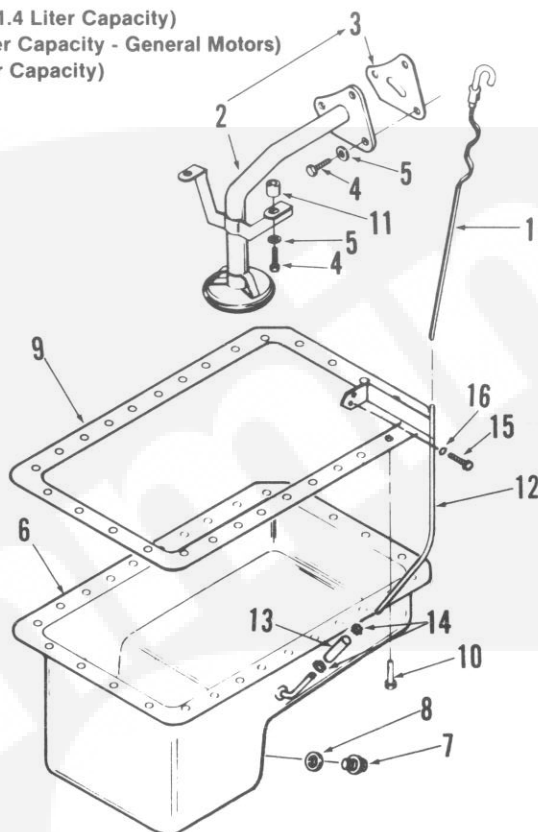


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	INDICATOR, OIL LEVEL		
	123-1524	1	Code 17AA
	123-1711-06	1	Code 17AE
	123-1711-11	1	Code 17CL
2	120-1088	1	Kit, Oil Pickup (Includes Gasket)
3	120-0917	1	Gasket, Oil Pickup
4	SCREW, CAP - HEX HEAD		
	718-1048	2	M8 x 80 MM
	718-1036	2	M8 x 20 MM
5	740-1006	4	Washer, Flat (M8)
6	102-1190	1	Pan, Oil
7	102-1146	1	Plug, Oil Drain
8	102-1147	1	Gasket, Oil Drain Plug
9	102-1036	1	Gasket, Oil Pan
10	815-0547	36	Screw, Cap - Hex Head (Includes Washer) - M8 x 20 MM
11	123-1779-01	1	Tube, Oil Level - Code 17CL
12	502-0966	1	Sleeve, Flareless Tube - Code 17CL
13	502-0967	1	Nut, Flareless Tube - Code 17CL
14	718-1018	2	Screw, Cap - Hex Head (M6 x 12 MM) Code 17CL
15	740-1004	2	Washer, Flat (M6) Code 17CL

## OIL PAN

Code 17AZ (20° Tilt - Drain to Front, 8.5 or 11.4 Liter Capacity)  
 Code 17BJ (20° Tilt - Drain to Front, 11.4 Liter Capacity - General Motors)  
 Code 17BK (20° Tilt - Drain to Front, 8.5 Liter Capacity)

5100-0652  
 5100-0703



LS-1059-1

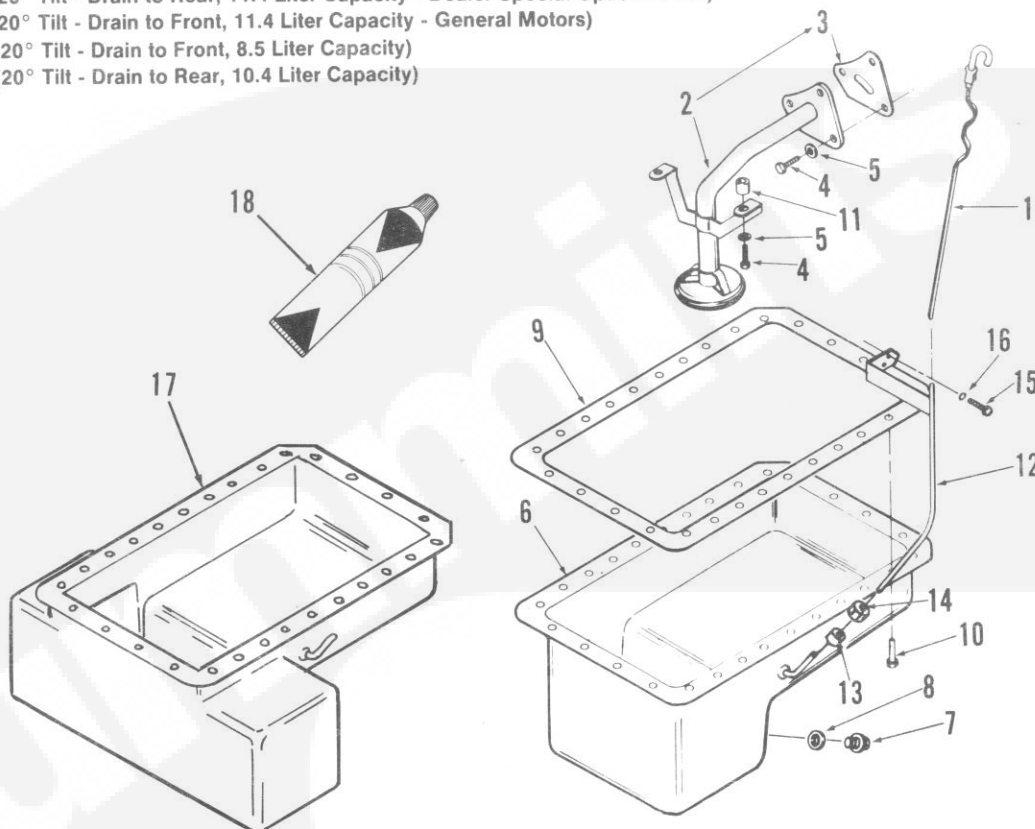
**NOTE:** Replacement parts are not interchangeable between separate page illustrations for Code 17BK and for General Motors in Code 17BJ Oil Pans. Use of below listed parts for Code 17BK were used prior to November, 1985 during Spec C. Use of below listed parts for General Motors in Code 17BJ were used prior to July, 1986 during Spec C.

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	123-1631	1	Indicator, Oil Level
2	120-1149	1	Kit, Oil Pickup (Includes Gasket)
3	120-0917	1	Gasket, Oil Pickup
4	SCREW, CAP - HEX HEAD		
	718-1056	2	M10 x 35 MM
	718-1048	2	M8 x 80 MM
	718-1036	1	M8 x 20 MM
5	WASHER, FLAT		
	740-1006	3	M8
	740-1008	2	M10
6	PAN, OIL		
	102-1265	1	8.5 Liter - Code 17AZ, 17BK
	102-1262	1	11.4 Liter - Code 17AZ, 17BJ
7	102-1146	1	Plug, Oil Drain
8	102-1147	1	Gasket, Oil Drain Plug
9	102-1036	1	Gasket, Oil Pan
10	815-0547	36	Screw, Cap - Hex Head (Includes Washer) - M8 x 20 MM
11	191-1321	2	Spacer, Oil Pickup
12	123-1644	1	Tube, Oil Level
13	503-1344	1	Hose
14	503-1133	2	Clamp, Hose
15	718-1018	2	Screw, Cap - Hex Head (M6 x 12 MM)
16	740-1004	2	Washer, Flat (M6)

## OIL PAN

Code 17BJ (20° Tilt - Drain to Rear, 11.4 Liter Capacity - Ford of Venezuela)  
 Code 17BJ (20° Tilt - Drain to Rear, 11.4 Liter Capacity - Dealer Special Option - Ford)  
 Code 17BJ (20° Tilt - Drain to Front, 11.4 Liter Capacity - General Motors)  
 Code 17BK (20° Tilt - Drain to Front, 8.5 Liter Capacity)  
 Code 17CP (20° Tilt - Drain to Rear, 10.4 Liter Capacity)

5100-1059  
 5100-1122  
 5100-1198  
 5100-1218  
 5100-1231



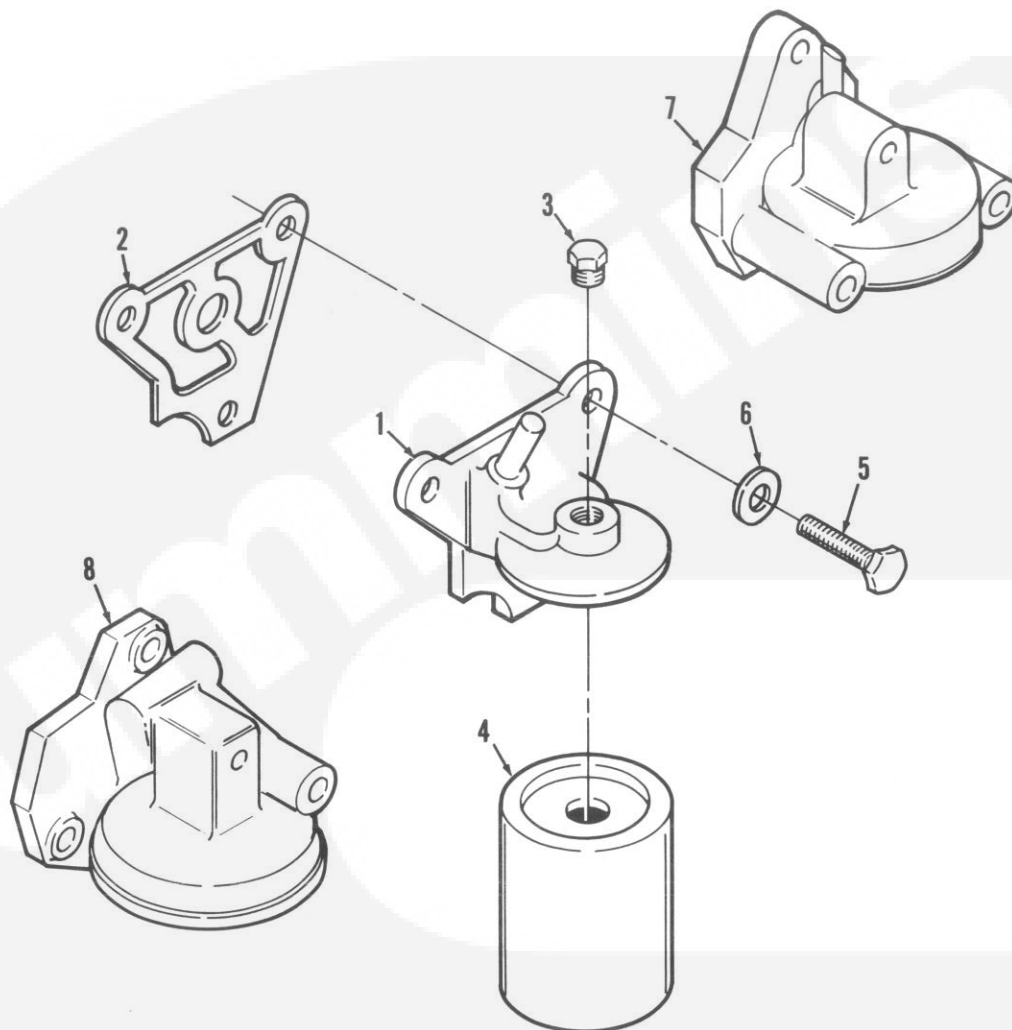
**NOTE:** Replacement parts are not interchangeable between separate page illustrations for Code 17BK and for General Motors in Code 17BJ Oil Pans. Use of below listed parts for Code 17BK began in November, 1985 during Spec C. Use of below listed parts for General Motors in Code 17BJ began in July, 1986 during Spec C.

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	INDICATOR, OIL LEVEL			11	191-1321	2	Spacer, Oil Pickup
	123-1667	1	Code 17BJ General Motors	12	TUBE, OIL LEVEL		
	123-1711-12	1	Dealer Special Option - Ford		123-1759-01	1	Code 17BJ General Motors
	123-1667	1	Code 17BK		123-1817-01	1	Dealer Special Option - Ford
	123-1711-13	1	Code 17CP		123-1666	1	Code 17BK
2	KIT, OIL PICKUP				123-1817-03	1	Code 17CP
	120-1149	1	Code 17BJ, 17BK (Includes Gasket)	13	502-0966	1	Sleeve, Flareless Tube - Code 17BJ - General Motors, 17BJ - Dealer Special Option - Ford, 17BK, 17CP
	120-1112-01	1	Code 17CP				
3	120-0917	1	Gasket, Oil Pickup	14	502-0967	1	Nut, Flareless Tube - Code 17BJ - General Motors, 17BJ - Dealer Special Option - Ford, 17BK, 17CP
4	SCREW, CAP - HEX HEAD						
	718-1056	2	M10 x 35 MM	15	718-1018	2	Screw, Cap - Hex Head (M6 x 12 MM) Code 17BJ - General Motors, 17BJ - Dealer Special Option - Ford, 17BK, 17CP
	718-1048	2	M8 x 80 MM				
	718-1036	1	M8 x 20 MM	16	740-1004	2	Washer, Flat (M6) Code 17BJ - General Motors, 17BJ - Dealer Special Option - Ford, 17BK, 17CP
5	WASHER, FLAT						
	740-1006	3	M8	17	102-1315	1	Pan, Oil - Code 17BJ - General Motors
	740-1008	2	M10	18	541-0286	1	Kit, RTV Sealant - Oil Base Mounting - Code 17BJ - Ford
6	PAN, OIL						
	102-1345	1	Code 17BJ - Ford				
	102-1280	1	Code 17BK				
	102-1347	1	Code 17CP				
7	102-1146	1	Plug, Oil Drain				
8	102-1147	1	Gasket, Oil Drain Plug				
9	102-1036	1	Gasket, Oil Pan - Code 17BJ - General Motors, 17BK				
10	815-0547	36	Screw, Cap - Hex Head (Includes Washer) - M8 x 20 MM				

## OIL FILTER

Code 17AJ (Vertical Down)  
Code 17AW (45°)  
Code 17CS (70°)

5100-0383  
5100-0454  
5100-0675  
5100-1219-01  
5100-1219-02



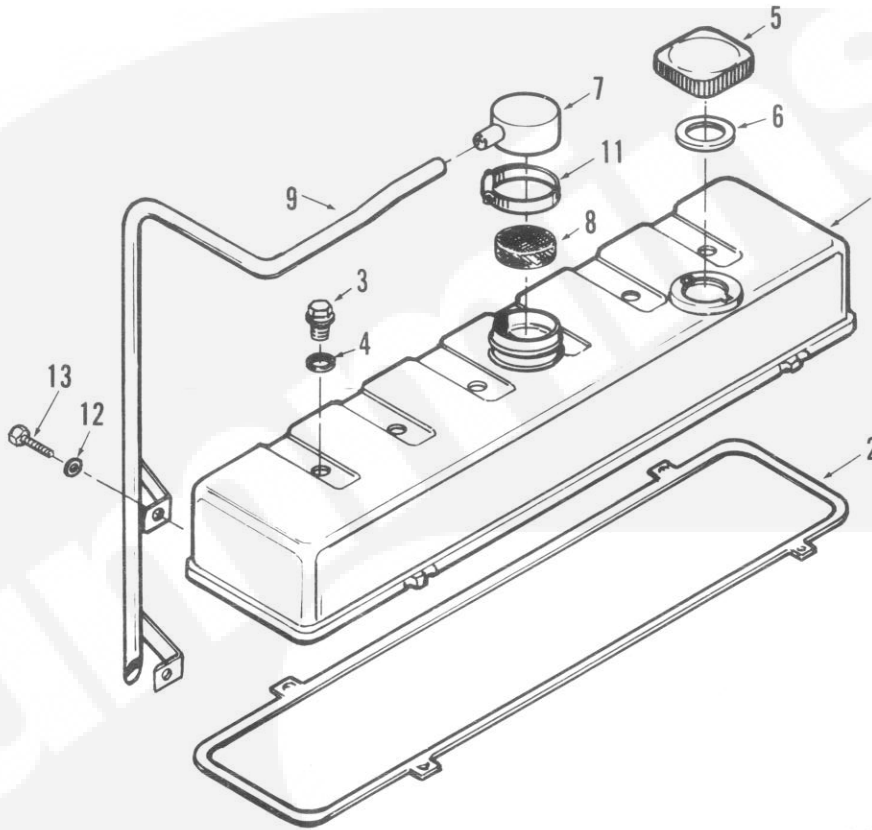
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	ADAPTER, OIL FILTER (Includes Gasket) Code 17AJ		
	122-0613	1	Engines with Oil Level Indicator Mounted in Oil Filter Adapter
	122-0662	1	Engines with Oil Level Indicator Mounted in Oil Pan
2	122-0635	1	Gasket, Oil Filter Adapter
3	505-0274	1	Plug, Pipe (1/4")
4	FILTER, OIL		
	122-0550	1	Code 17AJ, 17AW
	122-0712	1	Code 17CS

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
5	SCREW, CAP - HEX HEAD		
	718-1037	3	Code 17AJ (M8 x 25 MM)
			Code 17AW
	718-1037	1	M8 x 25 MM
	718-1804	2	M8 x 110 MM
			Code 17CS
	718-1037	2	M8 x 25 MM
	718-1048	1	M8 x 80 MM
6	526-2108	3	Washer, Flat (M8)
7	122-0606	1	Adapter, Oil Filter (45°)
			Code 17AW
8	ADAPTER ASSEMBLY, OIL FILTER (Includes Filter Head Adapter, Pressure Relief Valve and Side Mounted Pipe Plug)		
	Code 17CS		
	122-0711-02	1	All Except Ford Application
	122-0711-01	1	Ford Application

## ROCKER COVER

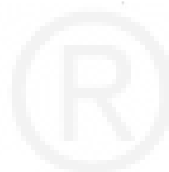
Code 17AL (Top Center)

5100-0385  
5100-1206



LS-1119

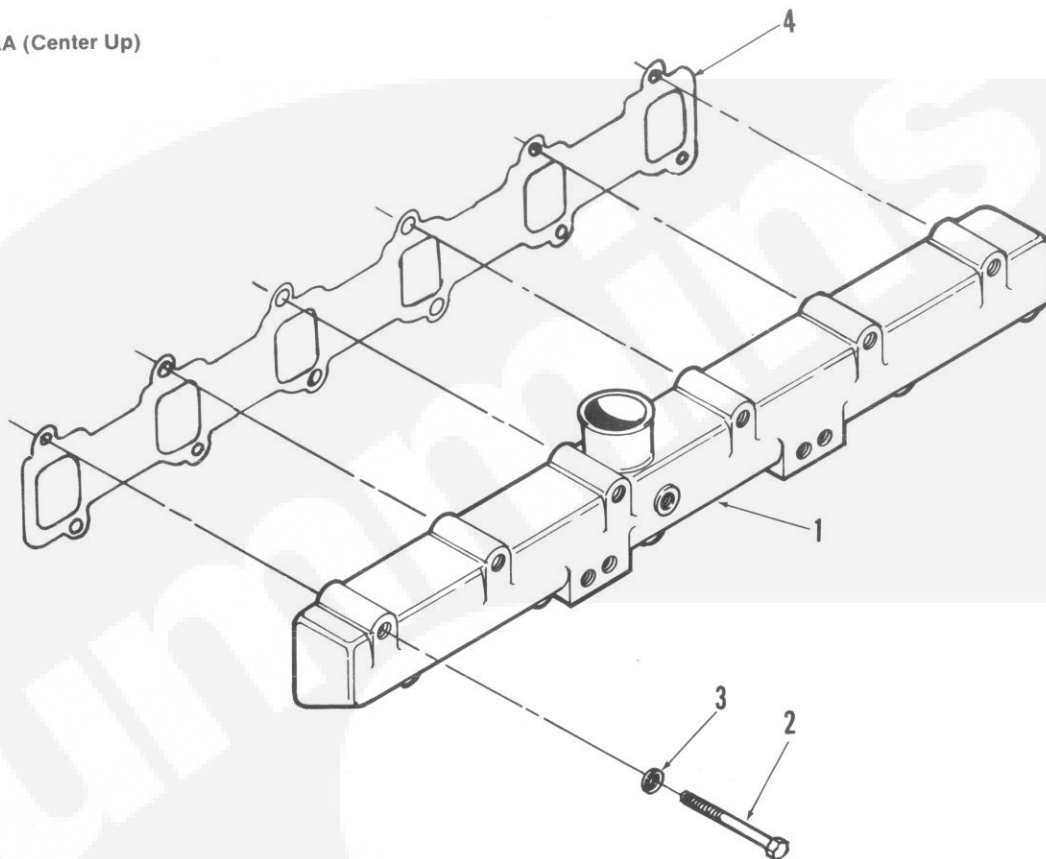
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	115-0347	1	Cover, Rocker
2	115-0244	1	Gasket, Rocker Cover
3	115-0320	6	Capnut, Rocker Cover
4	115-0232	6	Gasket, Capnut
5	CAP, OIL FILL 123-1605	1	All Except UPS Vehicle Application (Includes Gasket)
	123-1795	1	UPS Vehicle Application
6	123-1518	1	Gasket, Oil Fill Cap
7	123-1583	1	Cover, Breather
8	123-1675	1	Element, Breather
9	TUBE, BREATHER 123-1589	1	All Except UPS Vehicle Application
	123-1741	1	UPS Vehicle Application
11	503-1143	1	Clamp, Hose
12	740-1801	2	Washer, Flat (M12)
13	718-1072	2	Screw, Cap - Hex Head (M12 x 20 MM)



## INTAKE MANIFOLD

Code 19AA (Center Up)

5100-0381  
5100-0481  
5100-0978



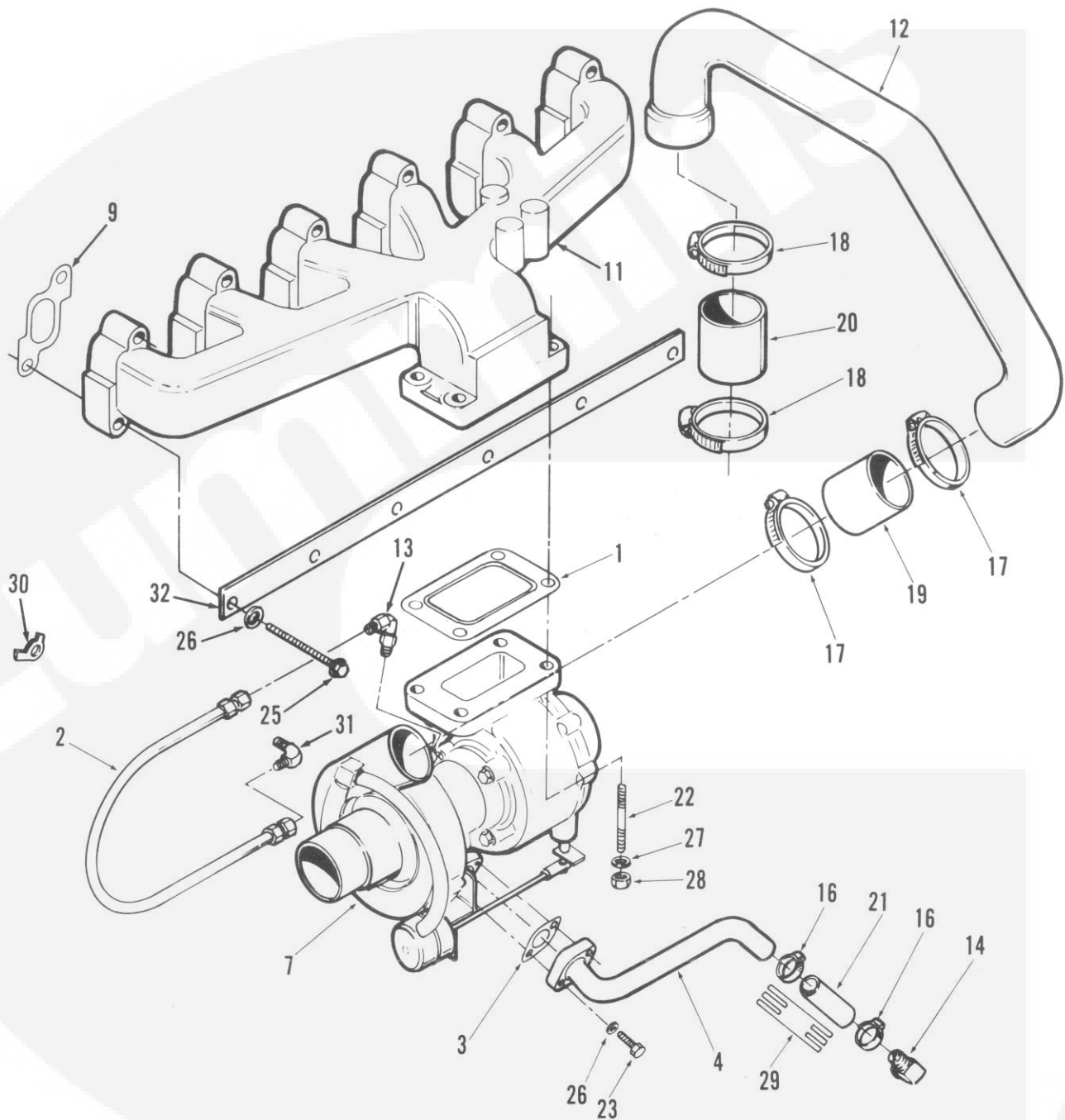
EXS-1050-2

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	MANIFOLD, INTAKE		
	154-2461	1	1984 Certified Engine
	154-2604	1	1985 through 1987 Certified Engine
2	SCREW, CAP - HEX HEAD		
	718-1801	12	1984 Certified Engine (M8 x 85 MM)
			1985 through 1987 Certified Engine
	718-1801	6	M8 x 85 MM
	718-1042	6	M8 x 50 MM
3	740-1006	12	Washer, Flat (M8)
4	154-2300	1	Gasket, Manifold



# EXHAUST MANIFOLD AND TURBOCHARGER

Code 21AB (Center Down)



## EXHAUST MANIFOLD AND TURBOCHARGER

Code 21AB (Center Down)

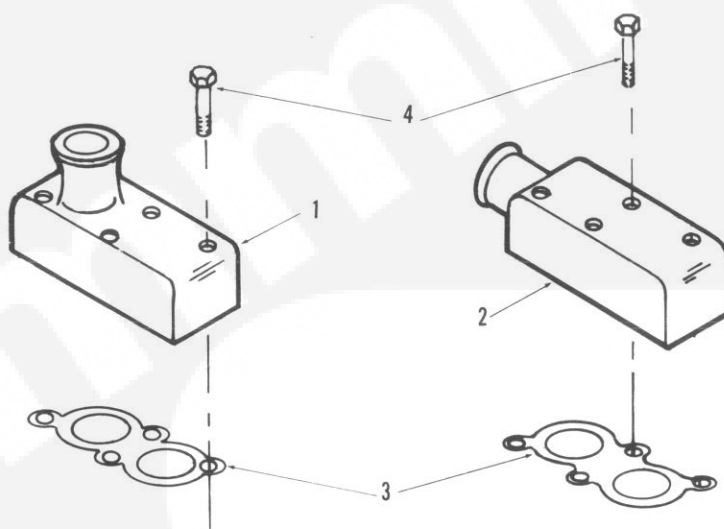
5100-1120  
5100-1185

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	127-0324	1	Gasket, Turbocharger
2	127-0345	1	Line, Oil (Feed)
3	127-0338	1	Gasket, Oil Drain Flange
4	127-0352	1	Drain, Oil - Turbo
7	TURBOCHARGER		
	127-0375-02	1	3600 RPM
	127-0375-03	1	2800, 3000 RPM
9	154-2162	6	Gasket, Exhaust Manifold
11	154-2728	1	Manifold, Exhaust
12	154-2511	1	Tube, Cross Over
13	502-0806	1	Elbow, Male (Extra Long)
14	502-0915	1	Elbow, Male (90°)
16	503-1136	2	Clamp, Hose
17	503-1141	2	Clamp, Hose
18	503-1142	2	Clamp, Hose
19	503-1159	1	Hose (50.8 MM x 80 MM)
20	503-1160	1	Hose (63.5 MM x 80 MM)
21	503-1161	1	Hose (19.5 MM x 70 MM)
22	520-2407	4	Stud
23	720-1036	2	Screw, Cap - Hex Head (M8 x 20 MM)
25	800-2516	12	Screw, Cap - Hex Head (Flanged) - (M8 x 40 MM)
26	740-1006	14	Washer, Flat (M8)
27	740-1008	4	Washer, Flat (M10)
28	750-1008	4	Nut, Hex (M10)
29	127-0344	1	Shield, Heat
30	154-2648	12	Washer, Lock Tab (Spec B Through Early Portion of Spec D)
31	502-0805	1	Elbow, Male (90°)
32	154-2715	2	Plate, Washer (Use Began During Later Portion of Spec D)

## COOLANT OUTLET CONNECTOR

Code 23AA (Vertical, Accessory Side)  
 Code 23AB (Horizontal, Non-Accessory Side)  
 Code 23AC (Horizontal, Accessory Side)  
 Code 23CP (Vertical, Non-Accessory Side)

5100-0102  
 5100-0129  
 5100-0994



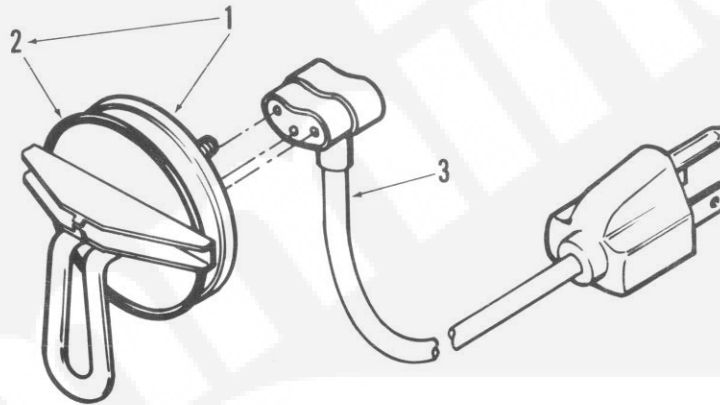
CS-1112

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	309-0473	1	Cover, Thermostat (Includes Gasket) - Code 23AA, 23CP (UPS Vehicle Application)
2	309-0474	1	Cover, Thermostat (Includes Gasket) - Codes 23AB, 23AC
3	309-0424	1	Gasket, Thermostat Cover
4	SCREW CAP - SOCKET HEAD		
	725-1056	4	M8 x 50 MM - Code 23AA, 23CP (UPS Vehicle Application)
	725-1058	4	M8 x 60 MM - Code 23AB, 23AC

## ENGINE BLOCK HEATER

Code 23AL (600 Watt)

5100-0540



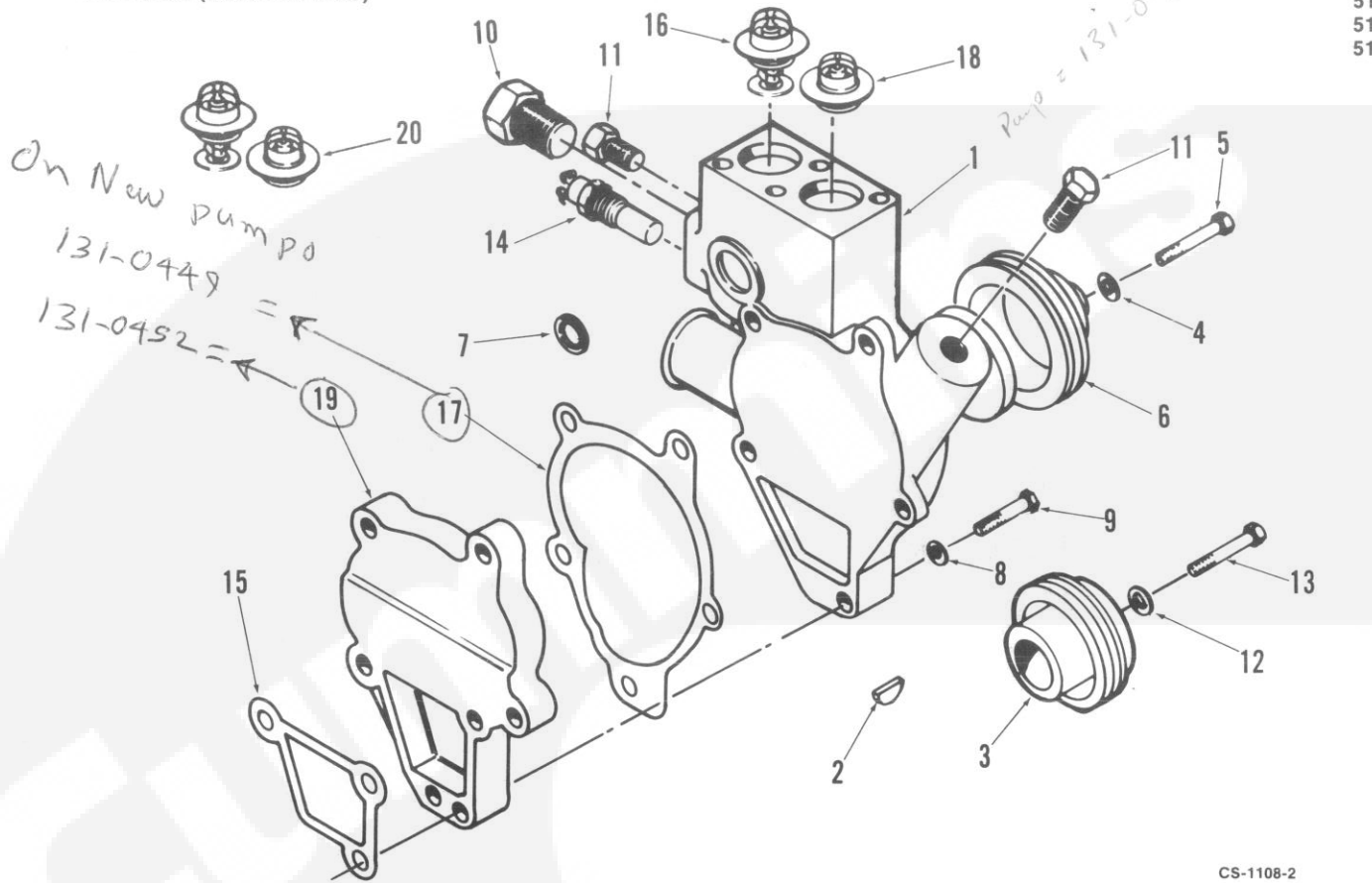
M-1597

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	333-0187	1	Heater (Includes O-Ring Seal)
2	509-0104	1	Seal, O-Ring
3	335-0158	1	Cord, Heater

# COOLANT PUMP (1984 CERTIFIED ENGINE)

Code 23AS (1.18 Drive Ratio)

5100-0596  
5100-0891  
5100-0893



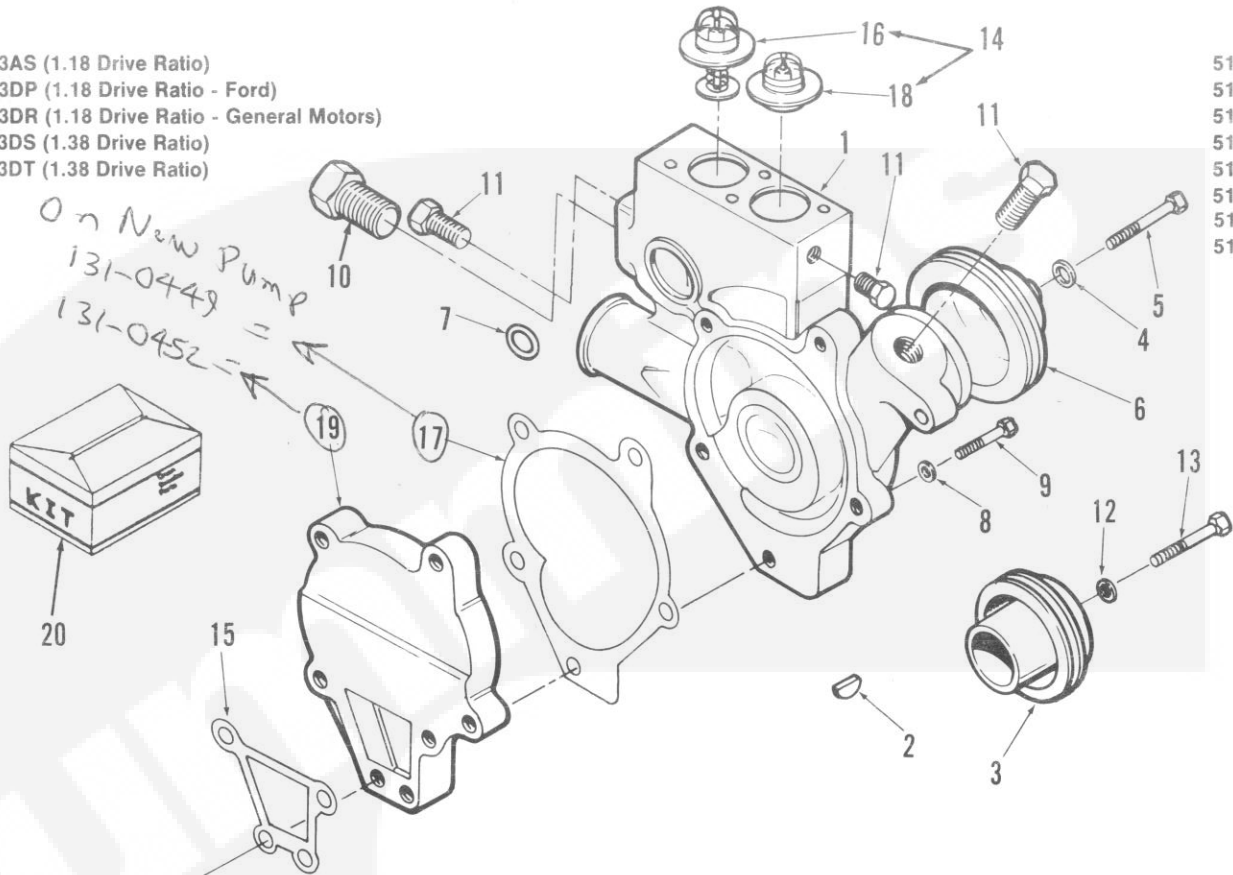
CS-1108-2

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	131-0421	1	Pump Kit, Coolant (Includes Mounting Gaskets)
2	515-0245	1	Key, Pulley
3	104-1660	1	Pulley, Crankshaft
4	740-1006	4	Washer, Flat (M8)
5	718-1036	4	Screw, Cap - Hex Head (M8 x 20 MM)
6	131-0412	1	Pulley, Coolant Pump
7	509-0264	1	Seal, O-Ring
8	740-1006	4	Washer, Flat (M8)
9	SCREW, CAP - HEX HEAD		
	718-1041	4	Pump to Base (M8 x 45 MM)
	718-1046	1	Pump to Block (M8 x 70 MM)
	725-1051	2	Base to Block (M8 x 25 MM)
10	502-0317	1	Plug, Pipe - Hex (3/4")
11	502-0775	2	Plug, Pipe - Brass Hex (3/8")
12	526-0283	1	Washer, Flat (M8)
13	720-1123	1	Screw, Cap - Hex Head (M16 x 60 MM)
14	309-0517	1	Switch, Thermo
15	131-0409	1	Gasket, Coolant Pump Mounting
16	309-0458	1	Thermostat Kit (192°) Includes Cover Gasket
17	131-0408	1	Gasket, Coolant Pump Base
18	309-0462	1	Thermostat Kit (180°) Includes Cover Gasket
19	131-0406	1	Base, Coolant Pump
20	309-0541	1	Kit, Thermostat (Includes Thermostats and Cover Gasket) (Optional Replacement Kit with 195° Thermostats)

# COOLANT PUMP (1985 THROUGH 1987 CERTIFIED ENGINES)

Code 23AS (1.18 Drive Ratio)  
Code 23DP (1.18 Drive Ratio - Ford)  
Code 23DR (1.18 Drive Ratio - General Motors)  
Code 23DS (1.38 Drive Ratio)  
Code 23DT (1.38 Drive Ratio)

5100-0893  
5100-1032  
5100-1099  
5100-1200  
5100-1207  
5100-1214  
5100-1230  
5100-1233



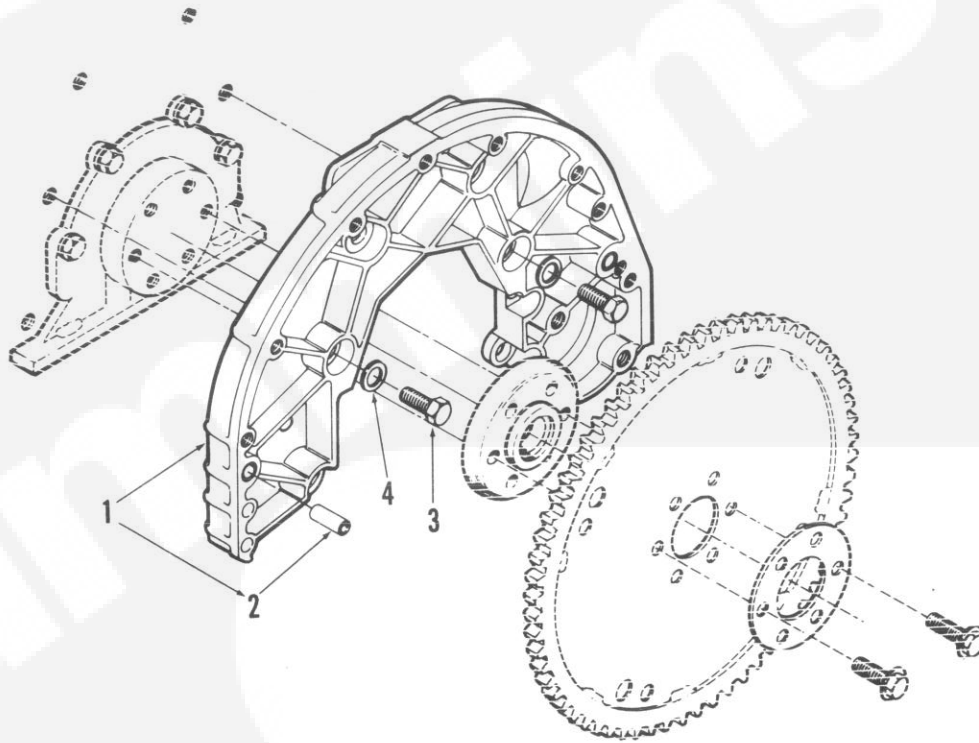
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	PUMP, COOLANT 131-0428	1	Code 23AS (Kit - Includes Mounting Gaskets)
	131-0441	1	Code 23DP, 23DR, 23DS, 23DT Key, Pulley
2	515-0245	1	
3	PULLEY, CRANKSHAFT 104-1660	1	Code 23AS, 23DR
	104-1691	1	Code 23DP, 23DS, 23DT
4	740-1006	4	Washer, Flat (M8)
5	718-1036	4	Screw, Cap - Hex Head (M8 x 20 MM)
6	PULLEY, COOLANT PUMP 131-0412	1	Code 23AS
	131-0442	1	Code 23DP
	131-0444	1	Code 23DR
	131-0445	1	Code 23DS, 23DT
7	509-0264	1	Seal, O-Ring
8	740-1006	5	Washer, Flat (M8)
9	SCREW, CAP - HEX HEAD 718-1041	3	Pump to Base M8 x 45 MM
	718-1042	1	M8 x 50 MM
	718-1046	1	Pump to Block (M8 x 70 MM)
	725-1051	2	Base to Block (M8 x 25 MM)
10	502-0317	1	Plug, Pipe - Hex (3/4")

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
11	502-0775	4	Plug, Pipe - Brass, Hex (3/8")
12	526-0283	1	Washer, Flat (M8)
13	720-1123	1	Screw, Cap - Hex Head (M16 x 60 MM)
14	309-0541	1	Kit, Thermostat (Includes Thermostats and Cover Gasket)
15	131-0408	1	Code 23AS, 23DP, 23DR, 23DS (195°)
16	THERMOSTAT 309-0536	1	Code 23DT (180°) (Includes Cover Gasket)
	309-0462	1	Gasket, Coolant Pump Mounting
17	131-0408	1	Code 23AS, 23DP, 23DR, 23DS (195°)
18	THERMOSTAT 309-0535	1	Code 23DT (180°)
	309-0500-01	1	Code 23AS, 23DP, 23DR, 23DS (195°)
19	131-0406	1	Code 23DT (180°)
20	541-0225	1	Base, Coolant Pump Kit, Repair - Coolant Pump (Includes Gaskets, Seal, Hub, Bearing and Impeller) Code 23AS

## TRANSMISSION ADAPTER

Code 27AL (Ford)  
Code 27AM (General Motors)  
Code 27AT (General Motors)  
Code 27AU (Ford)

5100-0603  
5100-0701  
5100-1158  
5100-1159



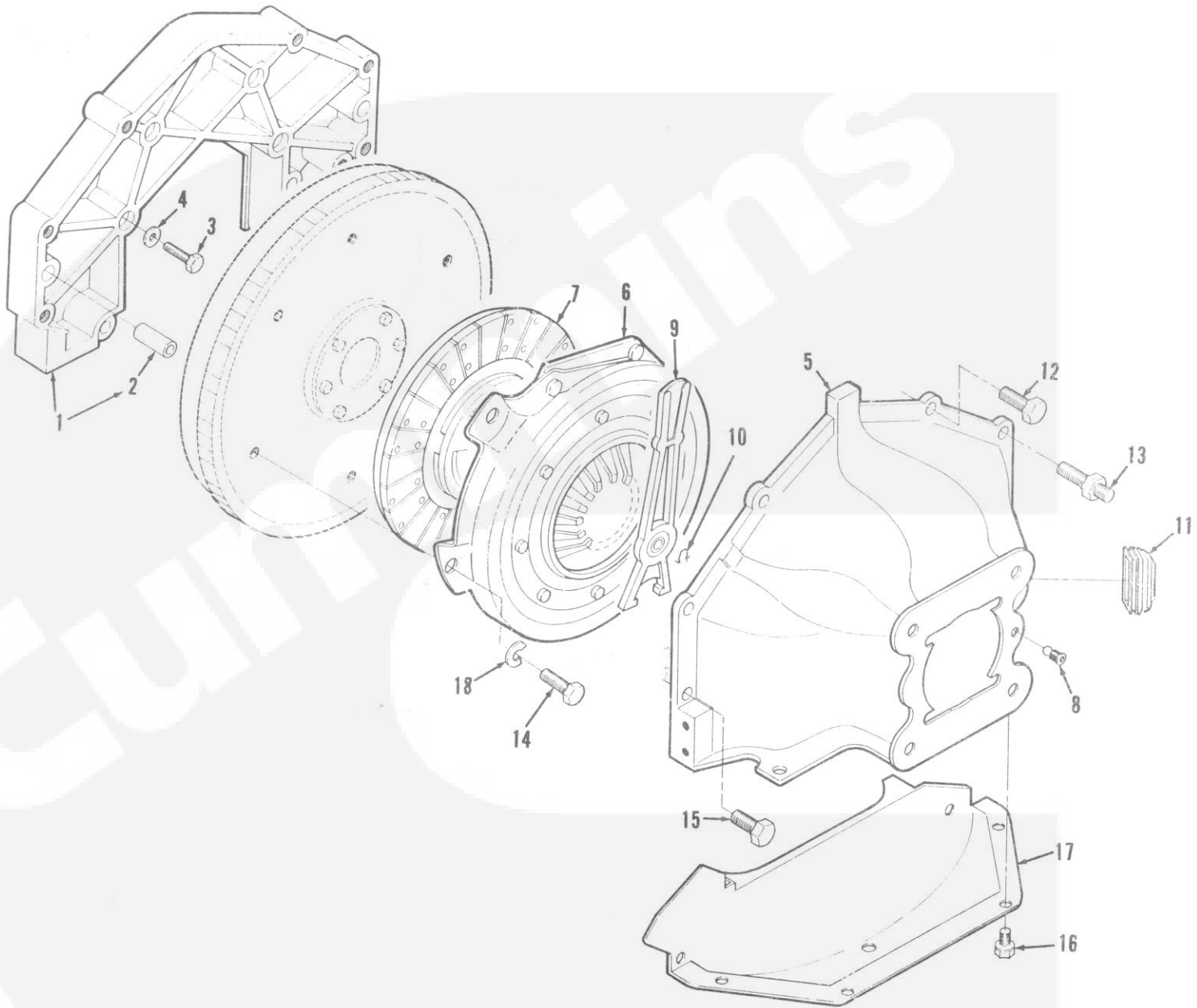
CT-1082

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	ADAPTER ASSEMBLY, TRANSMISSION (Includes Dowel Pins)		
	<sup>CK79</sup> 190-0622-01	1	General Motors Code 27AM - 1984 through 1986 Certified Engines
	190-0679-01	1	Code 27AT - 1987 Certified Engine
	<sup>CK79</sup> 190-0622-02	1	Ford Code 27AL - 1984 through 1986 Certified Engines
	190-0679-02	1	Code 27AU - 1987 Certified Engine
2	PIN, DOWEL 516-0218	2	General Motors - Code 27AM, 27AT
	516-0217	2	Ford - Code 27AL, 27AU
3	718-1076	6	Screw, Cap - Hex Head (M12 x 40 MM)
4	740-1801	6	Washer, Flat (M12)

## TRANSMISSION ADAPTER

Code 27AT (General Motors 292 Engine in P-40 Chassis - United Parcel Service Application)

5100-1215



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	190-0679-01	1	Adapter Assembly, Transmission (Includes Dowel Pins)
2	516-0218	2	Pin, Dowel
3	720-1076	6	Screw, Cap - Hex Head (M12 x 40 MM)
4	740-1801	6	Washer, Flat (M12)
5	190-0688	1	Housing, Bell - Transmission
6	190-0694	1	Plate, Pressure - Diaphragm
7	190-0689	1	Disc, Clutch
8	190-0693	1	Stud, Pivot Ball
9	190-0690	1	Fork, Clutch
10	190-0692	1	Spring, Retainer

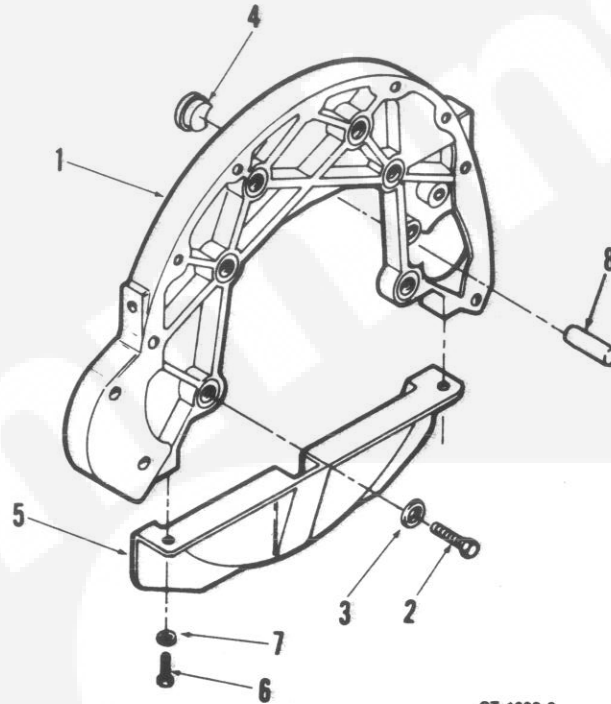
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
11	190-0691	1	Boot, Clutch Fork
12	800-0583	3	Screw, Cap - Hex Head (3/8-16 x 1-1/4")
13	520-0975	1	Stud (3/8-16)
14	800-0582	6	Screw, Cap - Hex Head (3/8-16 x 1")
15	800-0573	2	Screw, Cap - Hex Head (3/8-16 x 2-1/4")
16	821-0010	4	Screw, Locking Head (Flange) (1/4-20 x 1/2")
17	190-0674	1	Cover, Access - Transmission
18	850-0050	6	Washer, Lock-Spring (3/8")



## TRANSMISSION ADAPTER

Code 27AP (Chrysler 318 Case)  
Code 27AR (Chrysler 440 Case)

5100-1082  
5100-1083



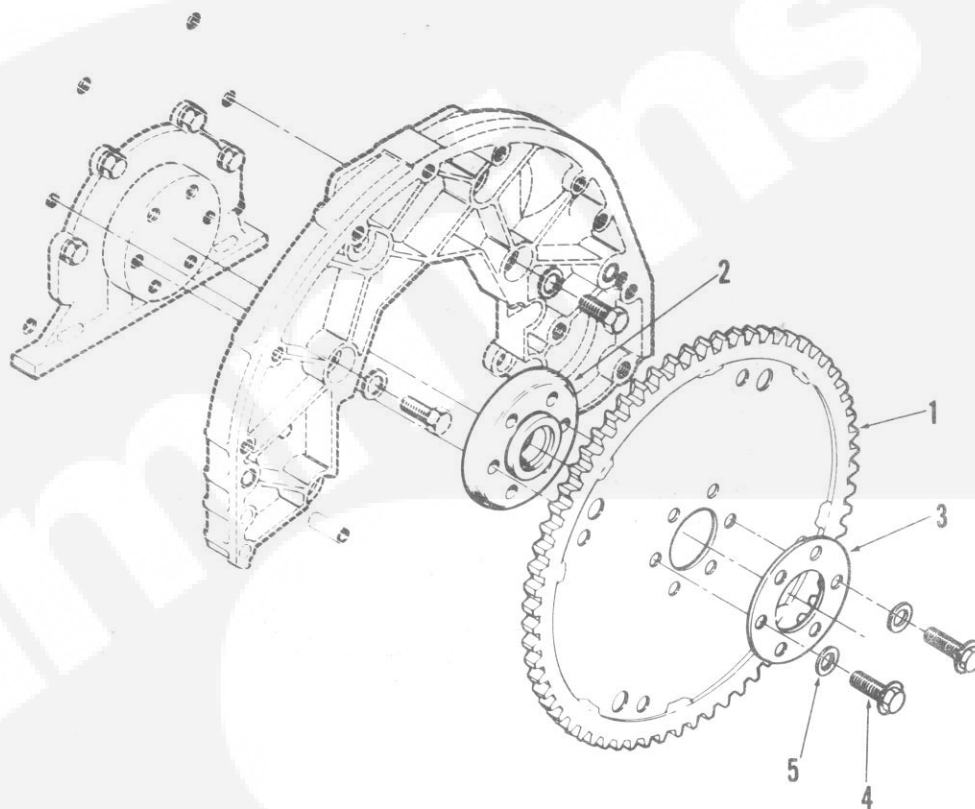
CT-1082-2

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	ADAPTER, TRANSMISSION		
	101-0746-01	1	Code 27AP
	101-0746-02	1	Code 27AR
2	718-1076	6	Screw, Cap - Hex Head (M12 x 40 MM)
3	740-1801	6	Washer, Flat (M12)
4	517-0238	1	Plug, Access Hole
5	104-1647	1	Cover, Flywheel
6	815-0634	2	Screw, Cap - Hex Head (With Nylon Locking Element) Special
7	526-2083	2	Washer, Flat (M6)
8	516-0167	2	Pin, Dowel

## FLEXPLATE

Code 29AP (Ford Automatic Transmission)  
Code 29AY (General Motors Transmission)

5100-0602  
5100-1121



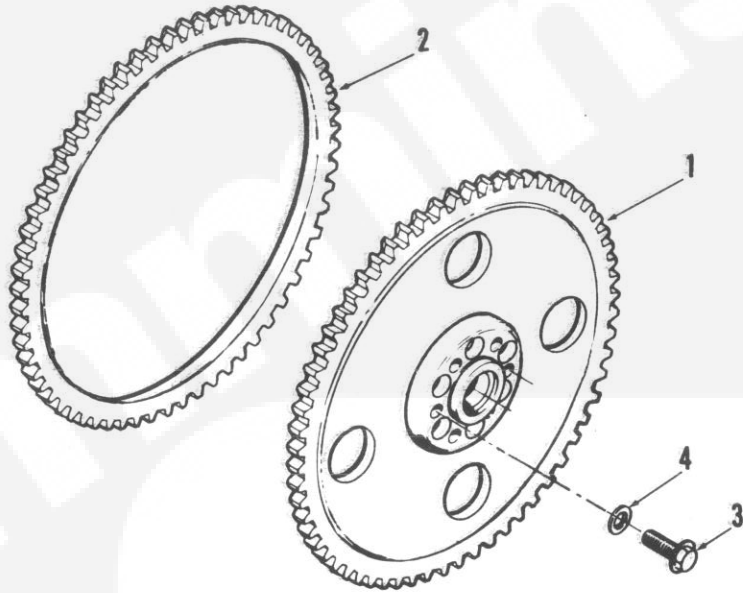
CT-1082-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	FLEXPLATE		
	104-1667	1	Code 29AP
	104-1668	1	Code 29 AY
2	HUB, FLEXPLATE		
	104-1536	1	Code 29AP
	104-1580	1	Code 29AY
3	104-1497	1	Clamp, Flexplate
4	720-1804	6	Screw, Cap - Flange Hex Head (M10 x 38 MM)
5	740-1008	6	Washer, Flat (M10)

## FLYWHEEL

Code 29AZ (Chrysler A727 Automatic Transmission)

5100-1084



CT-1082-3

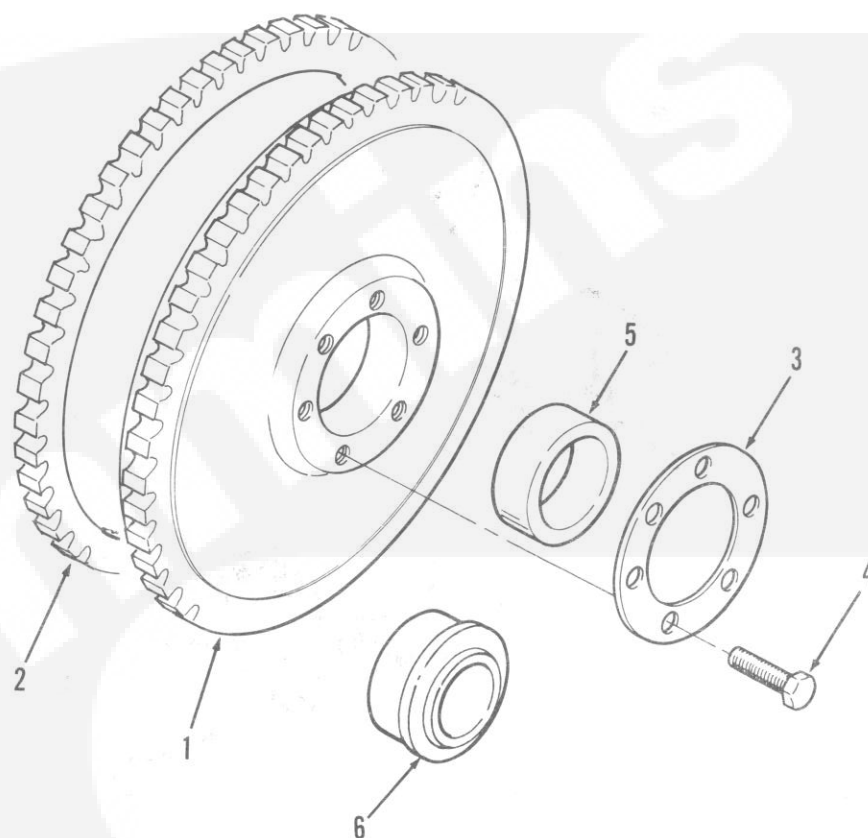
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	104-1630	1	*Flywheel Assembly (Includes Ring Gear)
2	104-1169	1	Gear, Ring
3	720-1805	6	Screw, Cap - Hex Head (M10 x 45 MM)
4	740-1008	6	Washer, Flat (M10)

\* - Chrysler part number 4058428, Torque Converter Drive Plate, is used to mate with Chrysler A727 Torque Converter.

## FLYWHEEL (1987 CERTIFIED ENGINE)

Code 29BA (General Motors)  
Code 29BB (Ford - Light Duty)  
Code 29BC (Ford - Heavy Duty)

5100-1160  
5100-1161  
5100-1162

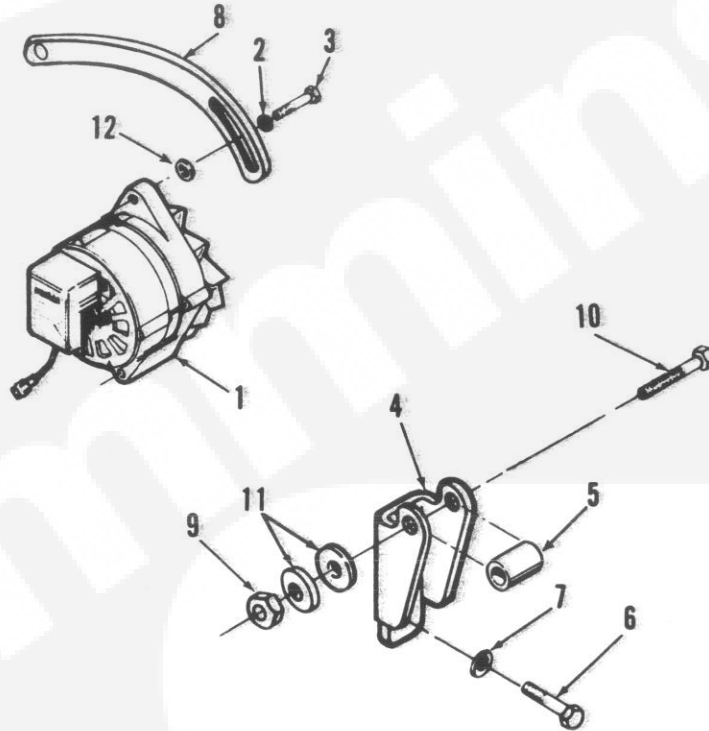


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	FLYWHEEL ASSEMBLY (Includes Ring Gear)		
	104-1672	1	Code 29BA (Includes Bushing)
	104-1671-01	1	Code 29BB (Includes Pilot Bearing)
	104-1670	1	Code 29BC
2	104-1666	1	Gear, Ring
3	104-1036	1	Plate, Washer
4	SCREW, CAP		
	720-1059	6	Hex Head (M10 x 50 MM) Code 29BA
	720-1804	6	Flange Hex Head (M10 x 38 MM) Code 29BB
	720-1060	6	Hex Head (M10 x 55 MM) Code 29BC
5	190-0681	1	Bushing - Code 29BA
6	510-0155	1	Bearing, Pilot - Code 29BB

## ALTERNATOR

Code 31AB (Low Mount Accessory Side - 12 Volt, 37 Amp)

5100-0081  
5100-0782  
5100-0785

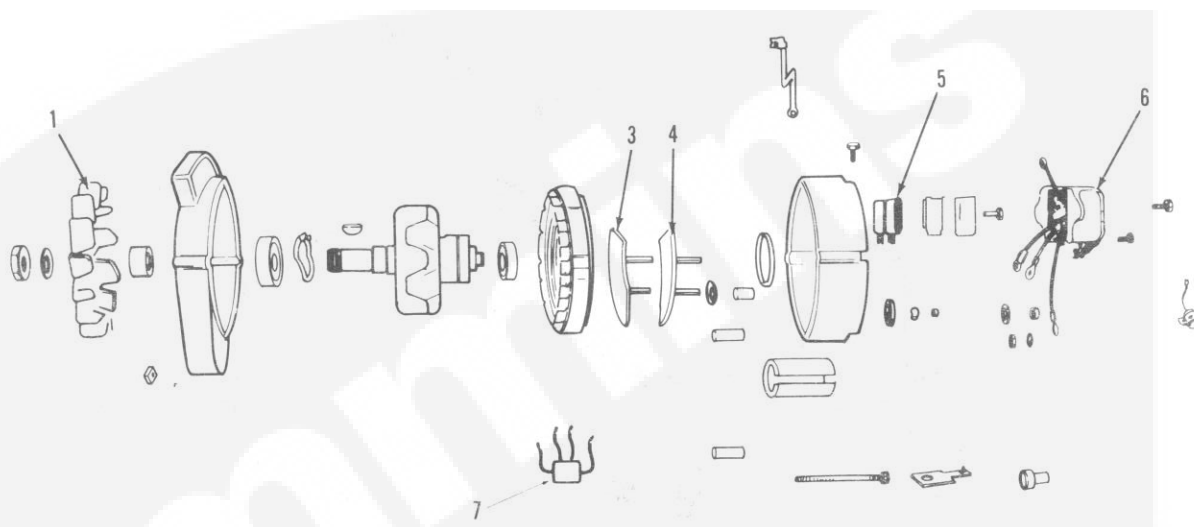


ES-1170-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	191-1525	1	Alternator (See Separate Group for Components)
2	526-2106	1	Washer, Flat (M8)
3	718-1036	1	Screw, Cap - Hex Head (M8 x 20 MM)
4	191-1332	1	Bracket, Alternator Mounting
5	191-1321	1	Spacer, Alternator Bracket
6	718-1037	4	Screw, Cap - Hex Head (M8 x 25 MM)
7	740-1006	4	Washer, Flat (M8)
8	191-1312	1	Strap, Alternator Adjusting
9	750-1008	1	Nut, Hex (M10)
10	800-2100	1	Screw, Cap - Hex Head (M10 x 100 MM)
11	740-1008	2	Washer, Flat (M10)
12	191-1322	1	Spacer, Alternator Strap

## ALTERNATOR COMPONENTS

Code 31AB (Low Mount Accessory Side - 12 Volt, 37 Amp)



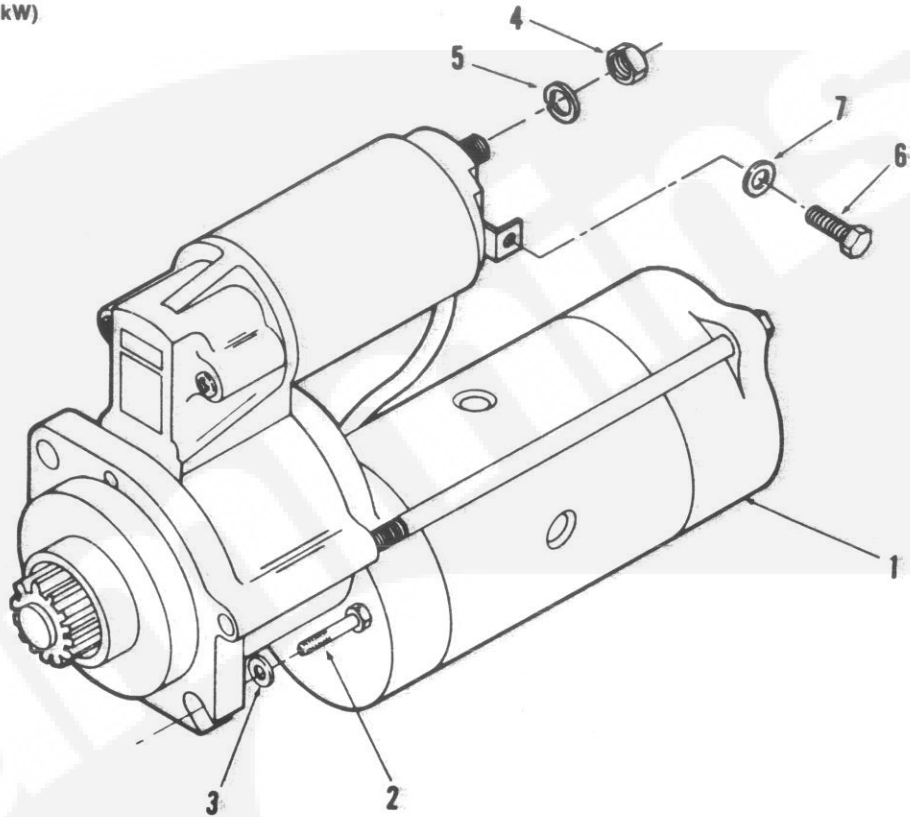
ES-1470

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	191-1525	1	Alternator (Complete)
1	191-0943	1	Fan, Alternator
3	191-1560	1	Diode, Rectifier - Negative
4	191-1559	1	Diode, Rectifier - Positive
5	191-1558	1	Brush Assembly
6	191-1557	1	Regulator, Voltage
7	191-1556	1	Diode, Trio

## STARTER

Code 33AA (12 Volt, 2.6 kW)  
Code 33AU (12 Volt, 3.2 kW)

5100-0082  
5100-1145



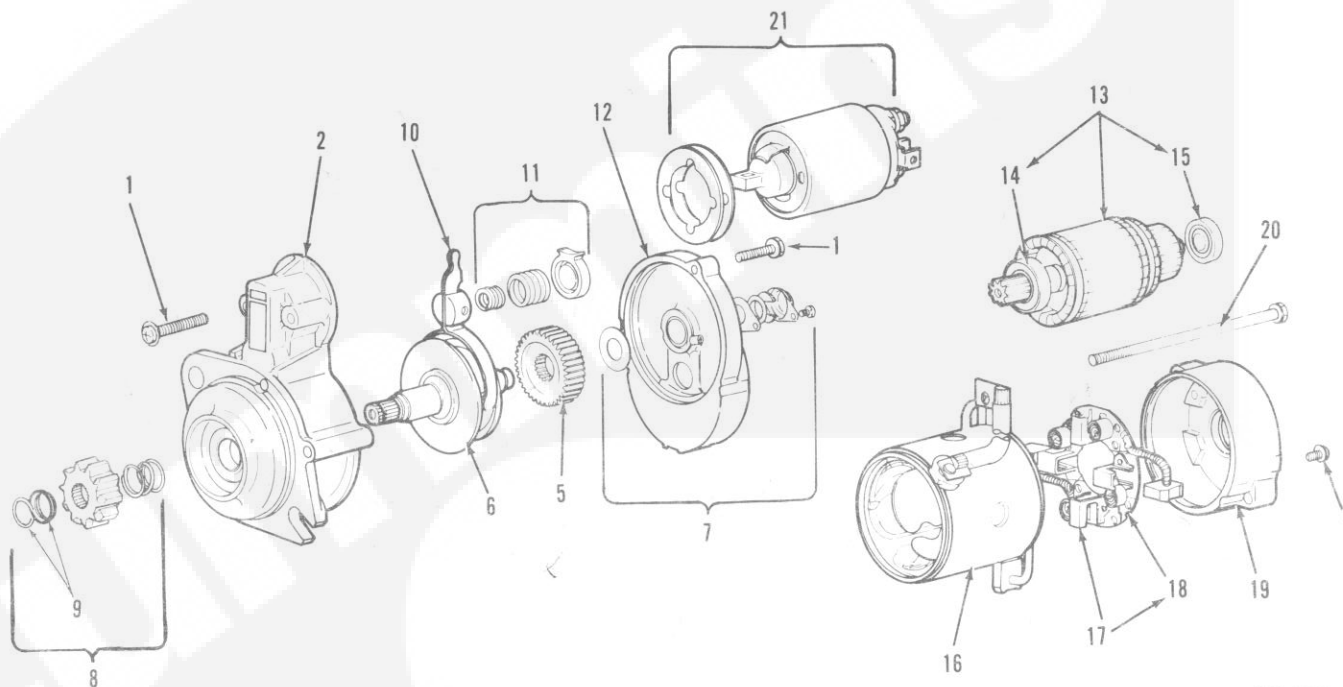
XES-1169

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	STARTER (See Separate Group for Components) (Includes Switch Terminal Hardware)		
	191-1394	1	Code 33AA 1984 Through November, 1987 Certified Engines
	191-1888	1	Begin December, 1987 Certified Engine
	191-1807	1	Code 33AU
2	720-1806	2	Screw, Cap - Flanged Hex Head (M12 x 30 MM)
3	740-1010	2	Washer, Flat (M12)
4	860-2008	1	Nut, Hex (M8) B+ Terminal
5	850-2008	1	Washer, Lock - Spring (M8) B+ Terminal
6	718-1002	1	Screw, Cap - Hex Head (M5 x 8 MM) Solenoid Terminal
7	850-2005	1	Washer, Lock - Spring (M5) Solenoid Terminal

## STARTER COMPONENTS

Code 33AA (12 Volt, 2.6 kW)

Code 33AU (12 Volt, 3.2 kW)



XES-1255

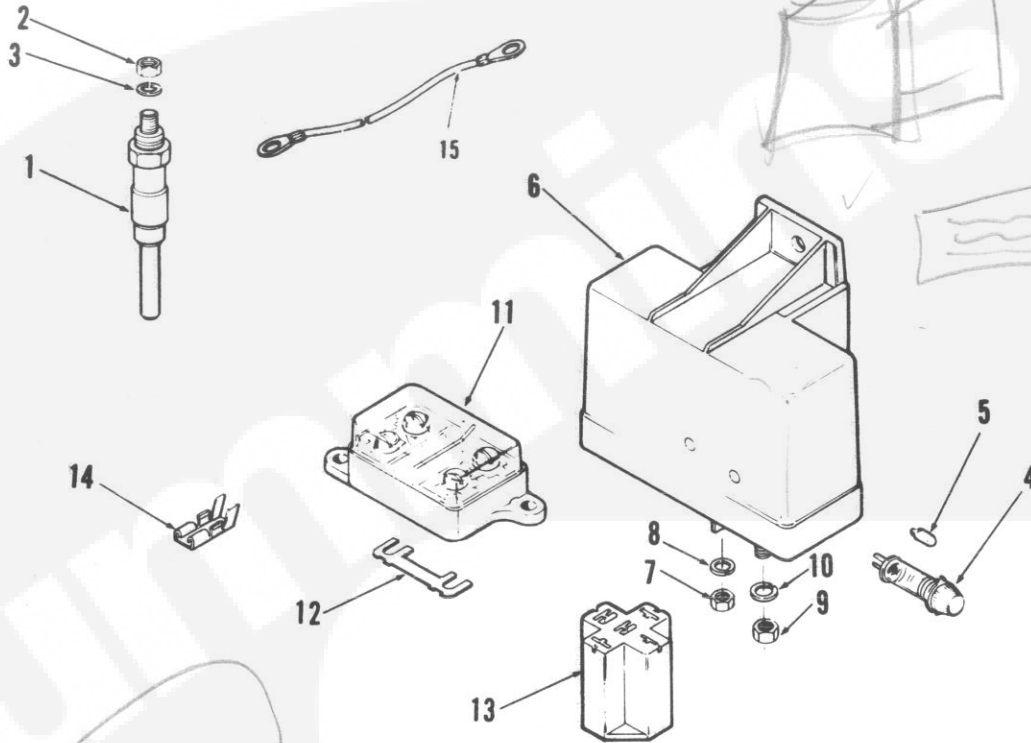
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
STARTER (Complete)				12	191-1439	1	Bracket Assembly, Center
			Code 33AA	13	ARMATURE ASSEMBLY (Includes Bearings)		
	191-1394	1	1984 Through November, 1987 Certified Engines		191-1438	1	Code 33AA
	191-1888	1	Begin December, 1987 Certified Engine		191-1854	1	Code 33AU
	191-1807	1	Code 33AU	14	191-1437	1	Bearing, Center
1	191-1450	1	Screw Set	15	191-1436	1	Bearing, Rear
2	191-1449	1	Bracket Assembly, Front (Includes Bearing)	16	YOKE ASSEMBLY (Includes Pole Shoes, Field Coil and Positive Brushes)		
3	191-	2	Ring, "O" - Sealing (Not Illustrated - Replacement part number not available at time of printing.) (Use began in December, 1987 Certified Engine for mounting the yoke assembly in the 191-1888 starter.)		191-1435	1	Code 33AA
					191-1853	1	Code 33AU
5	191-1446	1	Gear	17	HOLDER, BRUSH (Includes Negative Brushes)		
6	191-1445	1	Clutch		191-1434	1	Code 33AA
7	191-1444	1	Cover Set (Includes Cover, Plate, Washers, Snap Ring, and Screws)		191-1852	1	Code 33AU
8	191-1443	1	Pinion Set (Includes Pinion, Spring, and Stopper Set)	18	SPRING, BRUSH		
9	191-1442	1	Stopper Set (Includes Stopper and Ring)		191-1433	4	Code 33AA
10	191-1441	1	Lever Assembly		191-1851	4	Code 33AU
11	191-1440	1	Spring Set	19	191-1432	1	Bracket, Rear
				20	BOLT SET		
					191-1431	1	Code 33AA
					191-1850	1	Code 33AU
				21	191-1430	1	Switch Assembly



## GLOW PLUG AND CONTROL

Code 33AE (7 Second 12 Volt Glow Plugs with Control)  
Code 33AR (7 Second 12 Volt Glow Plugs)

5100-0343  
5100-0629  
5100-1201



M-1565

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	333-0220	6	Plug, Glow
2	750-1002	6	Nut, Hex (M5)
3	850-2005	6	Washer, Lock - Spring (M5)
4	322-0354	1	Light, Indicator - Code 33AE
5	322-0353	1	Lamp, Indicator - Code 33AE
6	333-0245	1	Controller, Glow Plug - Code 33AE
7	750-1002	1	Nut, Hex (M5) - Code 33AE
8	850-2005	1	Washer, Lock - Spring (M5) - Code 33AE
9	750-1004	1	Nut, Hex (M6) - Code 33AE
10	850-2006	1	Washer, Lock - Spring (M6) - Code 33AE
11	321-0263	1	Holder, Fuse - Code 33AE
12	321-0262-01	1	Fuse, Strap (80 Ampere) - Code 33AE
13	307-1690	1	Plug, Harness - Code 33AE
14	332-1497	4	Connector
15	336-4131	5	Lead, Glow Plug

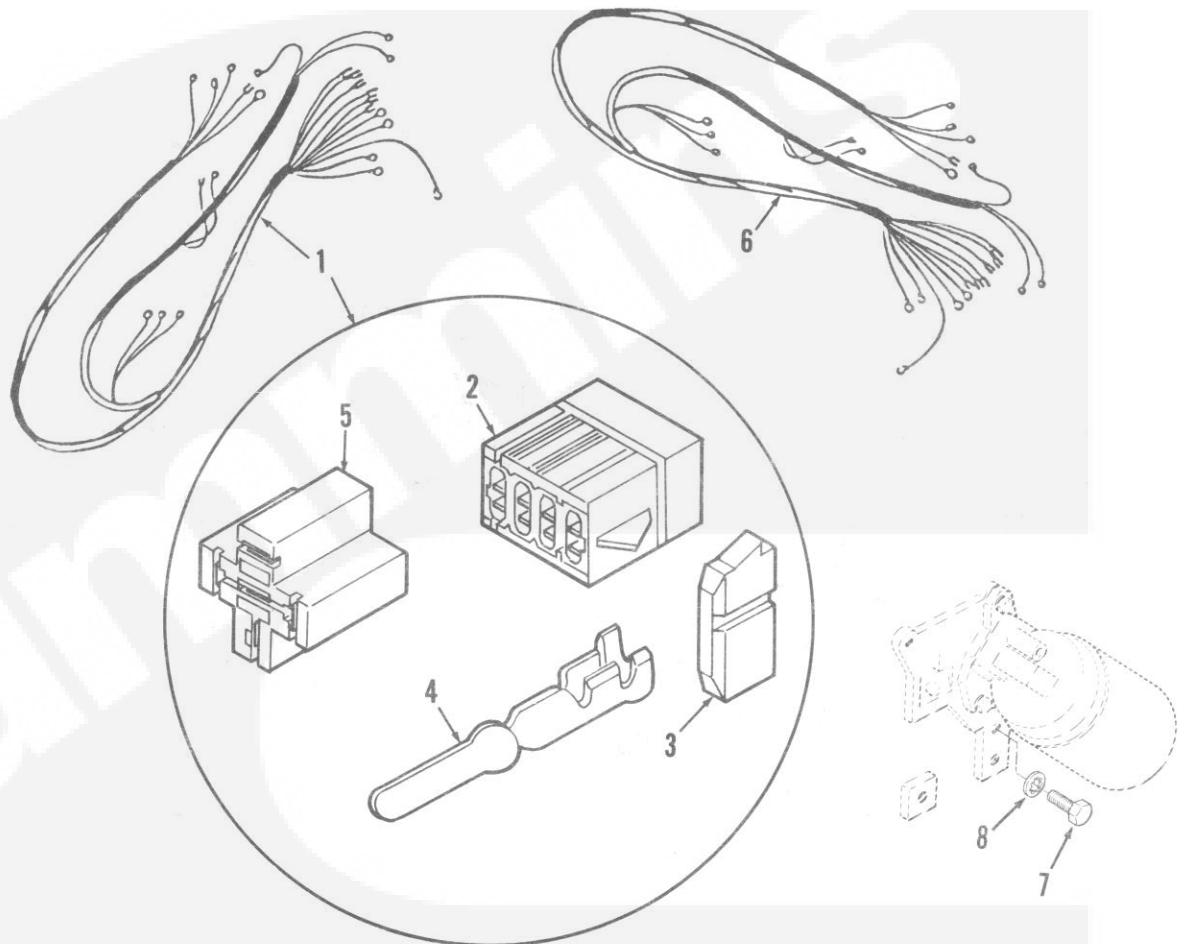
## PAINT AND THREAD SEALANT

PART NO.	QTY. USED	PART DESCRIPTION
525-0454	-	Paint, Greige (13 oz. Pressurized Spray Can)
518-0452	-	Sealant, Thread (50 cc Bottle)

# WIRING HARNESS

Code 35BU (Ford)

5100-1204

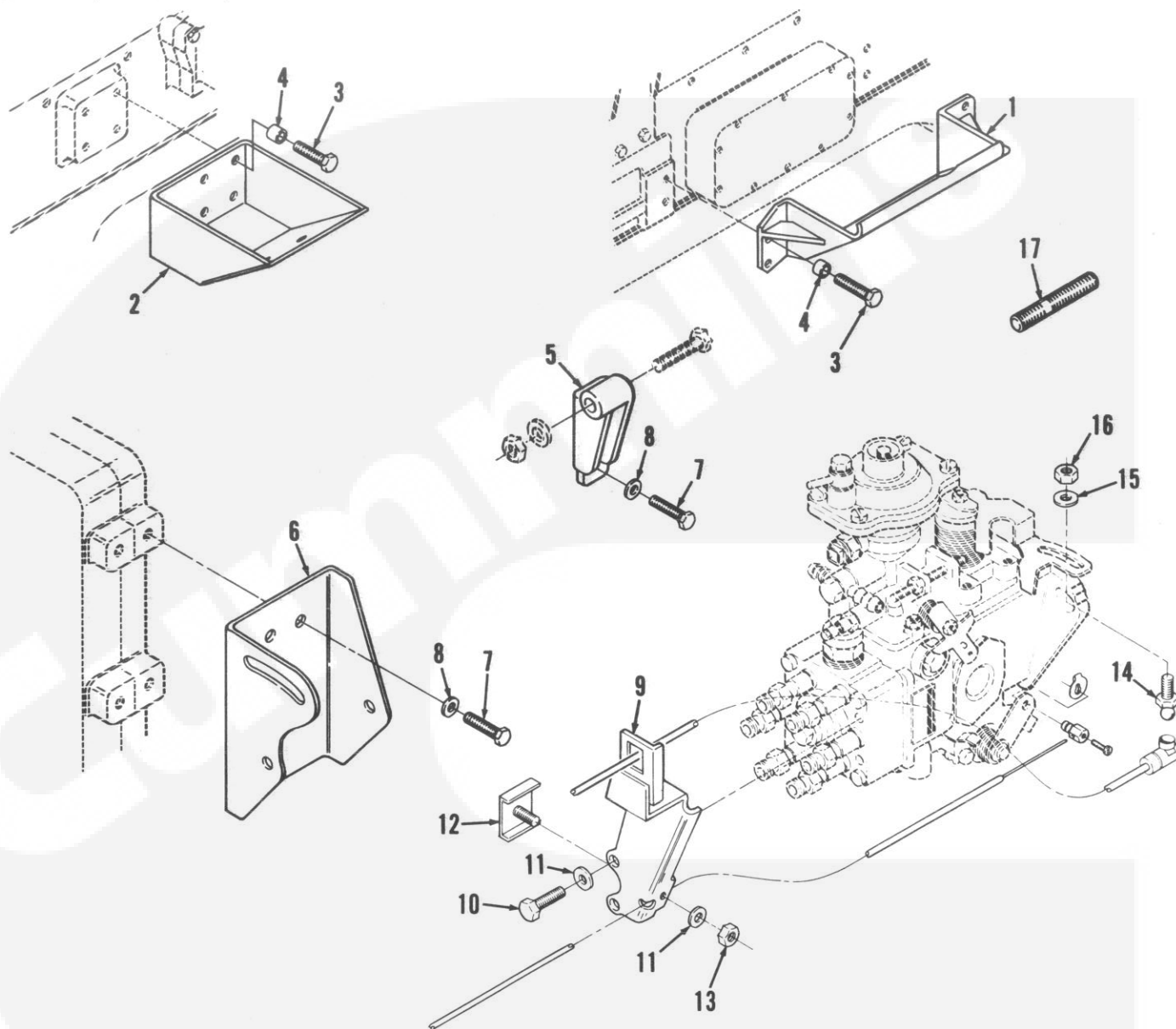


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	338-2288	1	Harness, Wiring - Engine (Includes Parts Marked*)
2	323-1426	1	*Connector (8 Place) P1
3	323-1427	1	*Wedge, Connector
4	SOCKET, CONNECTOR		
	323-1428	1	*10-12 Gauge Wire
	323-1429	1	*14 Gauge Wire
	323-1430	6	*18 Gauge Wire
5	307-1690	1	*Plug, Relay Harness (5 Place) P2
6	338-2289	1	Harness, Wiring - Starter to Starter Relay
7	800-2110	1	Screw, Ground - Hex Head Cap (M12 x 20 MM)
8	853-2012	1	Washer, Lock - IT (M12)

## ACCESSORY MOUNTING BRACKETS

Code 41AL (General Motors)

5100-1211



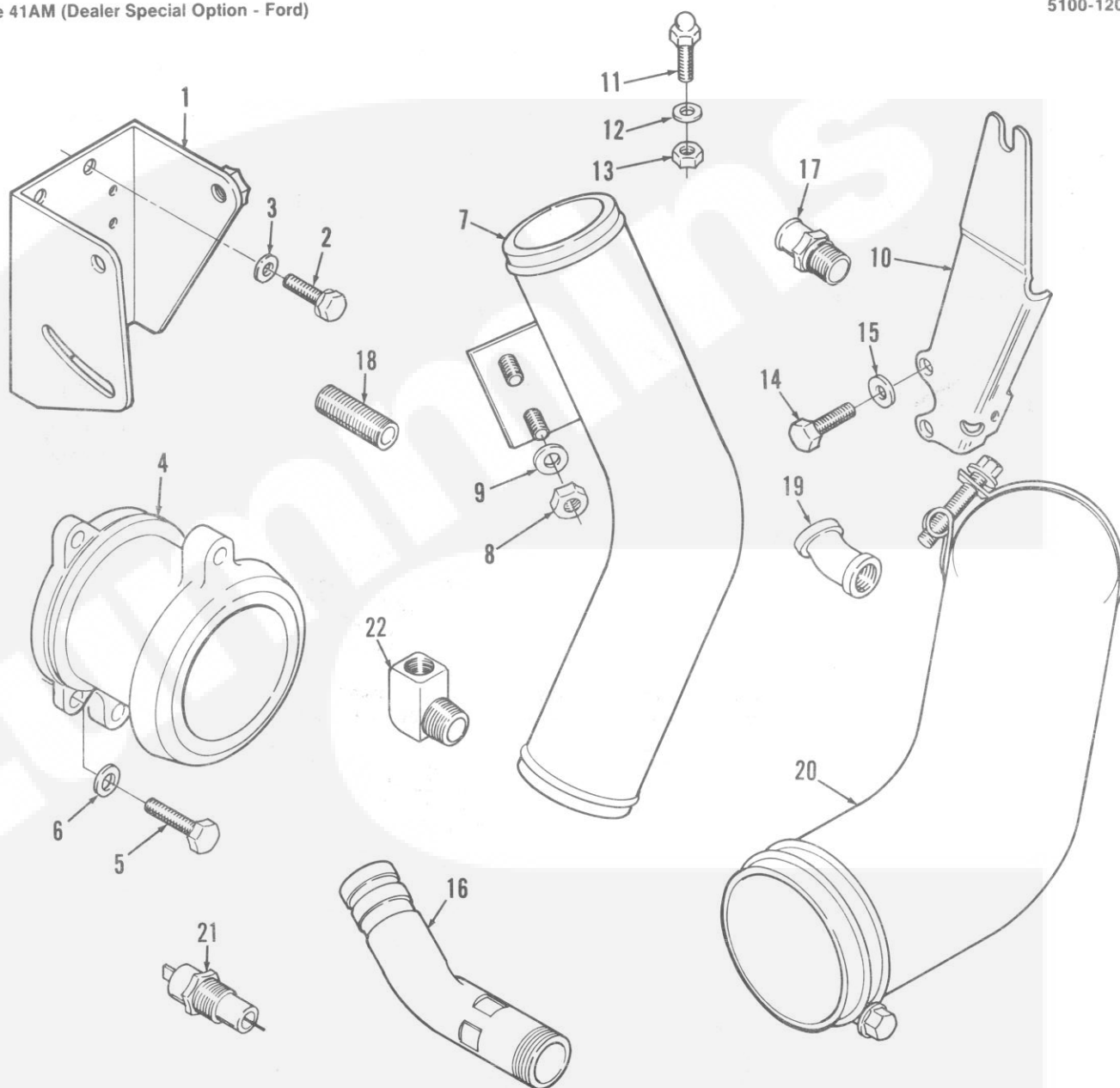
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	403-2260-01	1	Mount, Engine - Left Hand
2	403-2437-01	1	Mount, Engine - Right Hand
3	720-1075	8	Screw, Cap - Hex Head (M12 x 35 MM)
4	370-4033	8	Spacer
5	191-1806-01	1	Bracket, Alternator Mounting
6	121-0056-01	1	Bracket, Hydraulic Pump
7	718-1037	8	Screw, Cap - Hex Head (M8 x 25 MM)
8	740-1006	8	Washer, Flat (M8)
9	152-0288	1	Bracket, Throttle Cable

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
10	718-1021	2	Screw, Cap - Hex Head (M6 x 20 MM)
11	740-1004	3	Washer, Flat (M6)
12	541-0221	1	Kit, Throttle Clamp (Includes Lock Nut With Nylon Insert)
13	870-2052	1	Nut, Lock - With Nylon Insert (M6)
14	150-2136	1	Joint, Ball
15	526-0009	2	Washer, Flat (#10)
16	870-0298	1	Nut, Self-Locking (#10-32)
17	520-2211	3	Stud (M8 x 50 MM) Turbocharger Outlet Flange

## ACCESSORY LIST

Code 41AM (Dealer Special Option - Ford)

5100-1203



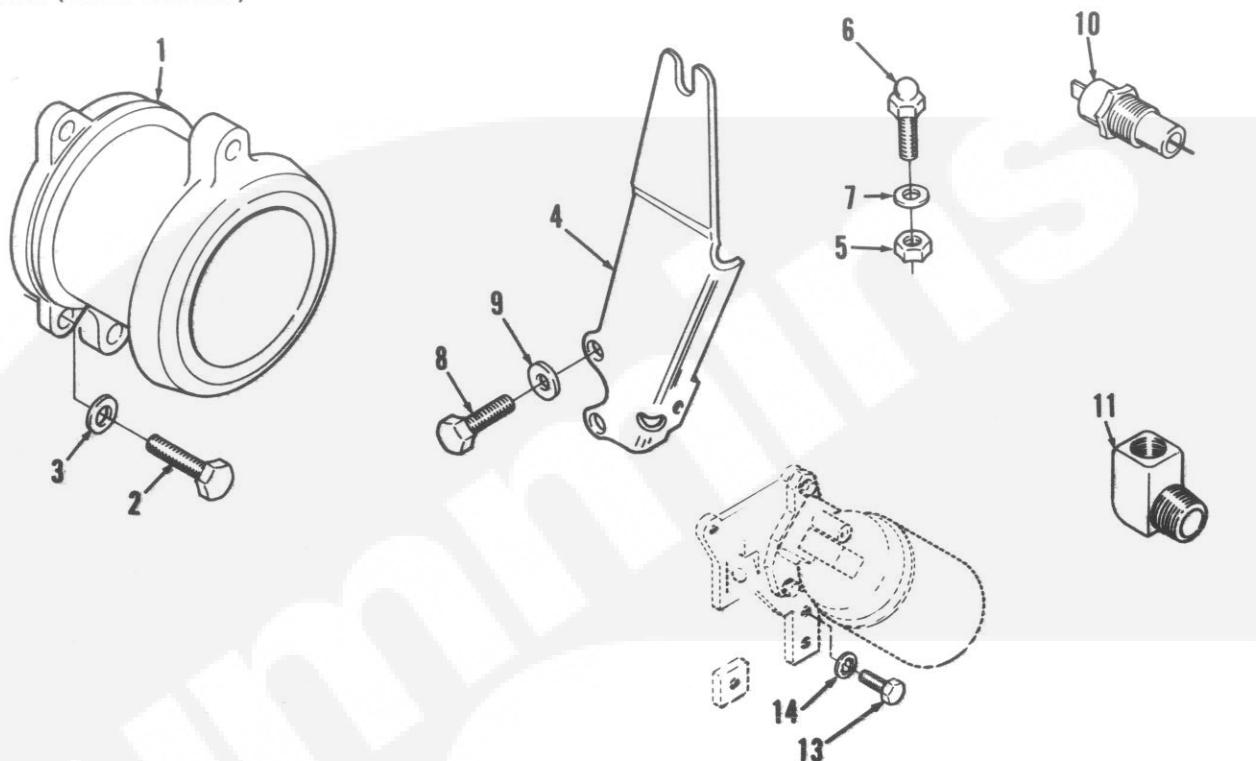
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	120-1199-01	1	Bracket, Power Steering Pump
2	718-1037	4	Screw, Cap - Hex Head (M8 x 25 MM)
3	740-1006	4	Washer, Flat (M8)
4	127-0382	1	Adapter, Turbocharger Exhaust
5	720-1037	3	Screw, Cap - Hex Head (M8 x 25 MM)
6	740-1006	3	Washer, Flat (M8)
7	130-3201-01	1	Bracket, Radiator Tube
8	750-1004	2	Nut, Hex (M6)
9	740-1004	2	Washer, Flat (M6)
10	152-0285	1	Bracket, Throttle Cable
11	150-2136	1	Joint, Ball
12	526-0009	2	Washer, Flat (#10)
13	870-0298	1	Nut, Self-Locking (#10-32)
14	718-1021	2	Screw, Cap - Hex Head (M6 x 20 MM)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
15	740-1004	2	Washer, Flat (M6)
16	502-1048	1	Elbow (3/8" Pipe to 5/8" ID Hose) Heater Suction Side
17	502-0943	1	Connector, Hose (3/8" Pipe to 1/2" ID Hose) Heater Pressure Side
18	505-0101	1	Nipple, Close - Pipe (3/8") Heater Pressure Side
19	505-0376	1	Elbow, Pipe - 45° (3/8") Heater Pressure Side
20	503-1584	1	Hose, Radiator - Lower (Marked "ENG") Includes Mounting Clamps
21	309-0552	1	Switch, Thermostat (Opens at 200°F - Closes at 230°F)
22	502-0099	1	Elbow, Reducing - 90° (1/4" to 1/8") Oil Pressure Sender Mounting

## ACCESSORY LIST

Code 41AM (Ford of Venezuela)

5100-1232

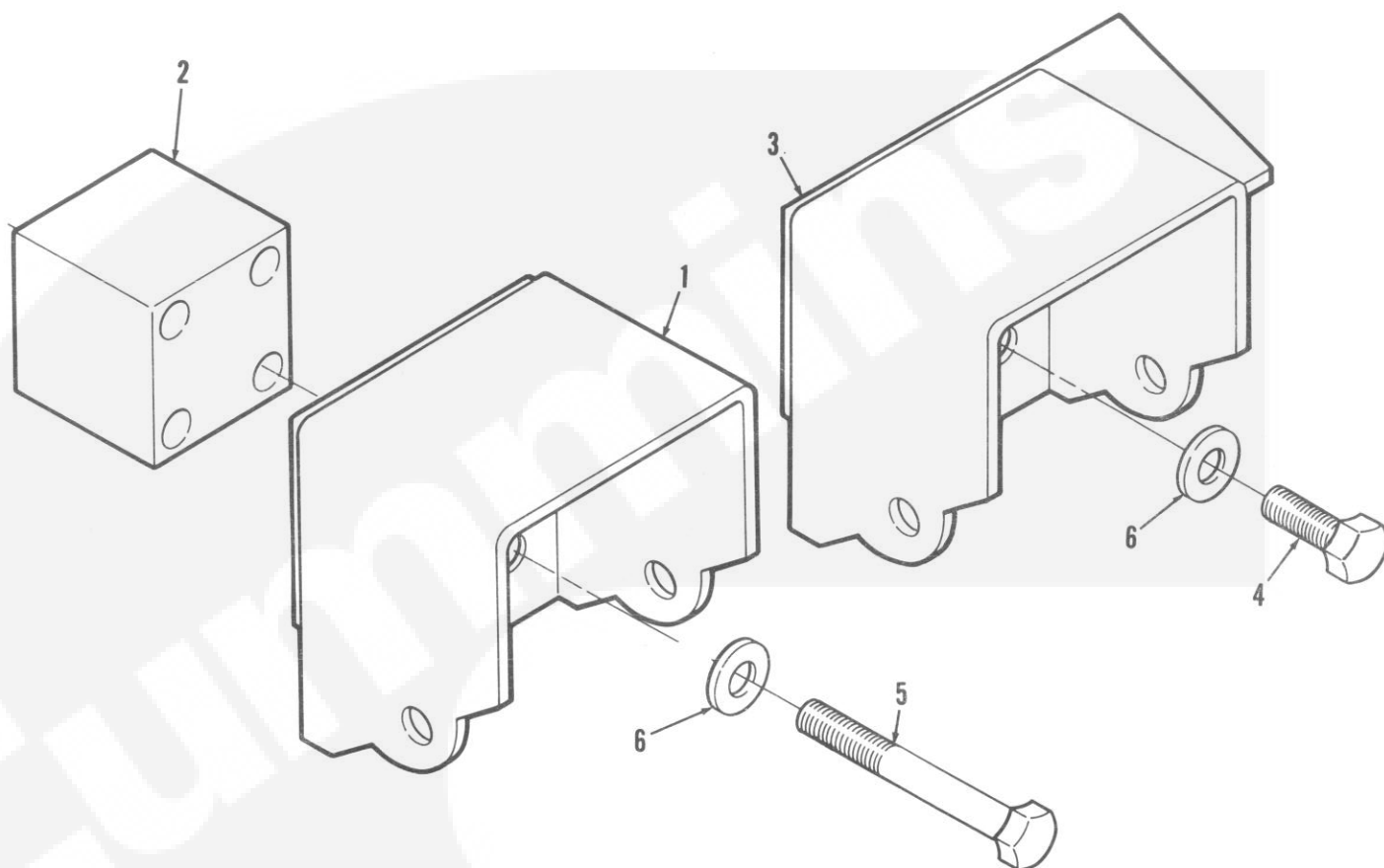


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	127-0382	1	Adapter, Turbocharger Exhaust
2	720-1037	3	Screw, Cap - Hex Head (M8 x 25 MM)
3	740-1006	3	Washer, Flat (M8)
4	152-0285	1	Bracket, Throttle Cable
5	870-0298	1	Nut, Self-Locking (#10-32)
6	150-2136	1	Joint, Ball
7	526-0009	2	Washer, Flat (#10)
8	718-1021	2	Screw, Cap - Hex Head (M6 x 20 MM)
9	740-1004	2	Washer, Flat (M6)
10	309-0437	1	Switch, Thermostat (Opens at 202°F - Closes at 222°F)
11	502-0099	1	Elbow, Reducing - 90° (1/4" to 1/8") Oil Pressure Sender Mounting
13	800-2110	1	Screw, Ground - Hex Head Cap (M12 x 20 MM)
14	853-2012	1	Washer, Lock - IT (M12)

# ENGINE MOUNT

Code 41AN (Ford)

5100-1209

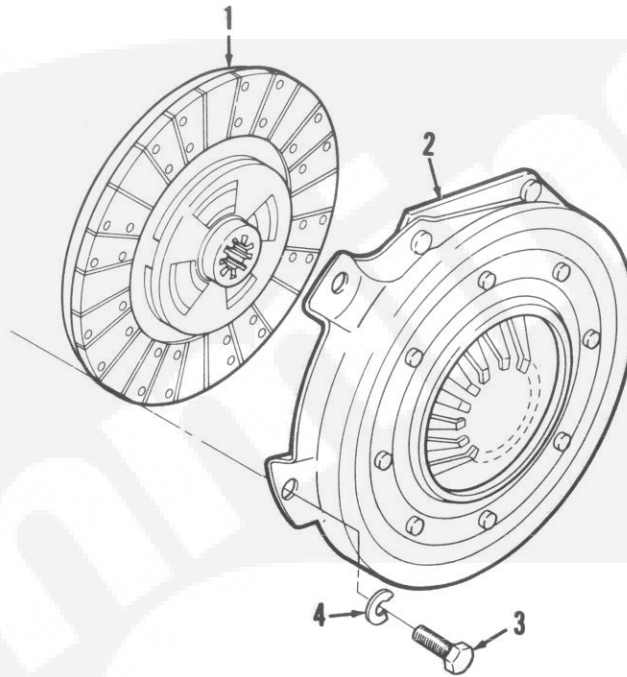


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	403-2723-01	1	Mount, Engine - Left Hand
2	403-2734	1	Spacer, Engine Mount
3	403-2724-01	1	Mount, Engine - Right Hand
4	720-1074	3	Screw, Cap - Hex Head (M12 x 30 MM)
5	720-1086	4	Screw, Cap - Hex Head (M12 x 90 MM)
6	740-1801	7	Washer, Flat (M12)

## CLUTCH

Code 45DU (Ford)

5100-1208



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	190-0700	1	Disc, Clutch
2	190-0699	1	Plate, Pressure
3	800-0587	6	Screw, Cap - Hex Head (Special) (3/8-16 x 31/32")
4	526-0358	6	Washer, Flat (Special) (3/8")

Used with Borg-Warner T-19 Transmission

# FIELD INSTALLATION KITS

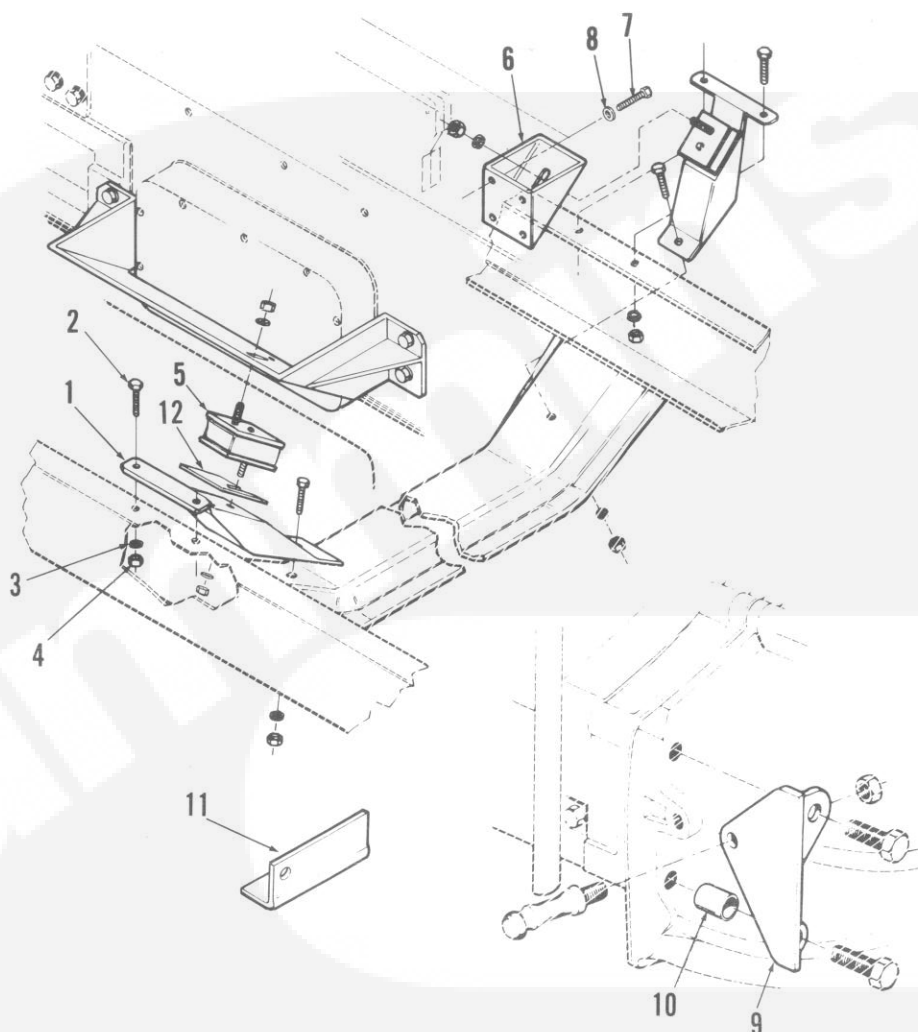
(General Motors and Ford)





## ENGINE MOUNTING (GENERAL MOTORS)

541-0047  
541-0102

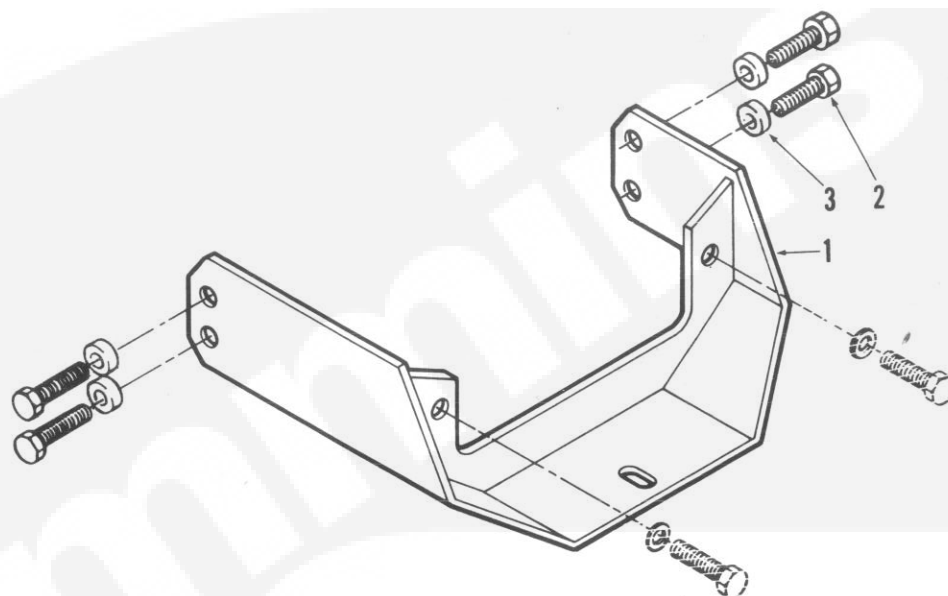


M-1617-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	BRACKET, FRAME MOUNTING		
	403-2328	1	Right Hand
	403-2329	1	Left Hand
2	800-0051	6	Screw, Cap - Hex Head (3/8-16 x 1-1/4")
3	850-0050	6	Washer, Lock - Spring (3/8")
4	862-0003	6	Nut, Hex (3/8-16)
5	402-0578	1	Isolator Assembly (Includes Two Isolators and Mounting Hardware)
6	BRACKET, ENGINE MOUNTING		
	403-2285	1	Right Hand
	403-2286	1	Left Hand
7	718-1073	8	Screw, Cap - Hex Head (M12 x 25 MM)
8	740-1801	8	Washer, Flat (M12)
9	190-0642	1	Bracket, Clutch Ball Stud
10	190-0643	1	Spacer, Clutch Bracket
11	190-0645	1	Bracket, Clutch Shaft Frame
12	403-2412	2	Spacer, Engine Mount

## ENGINE MOUNTING (FORD)

541-0045  
541-0076

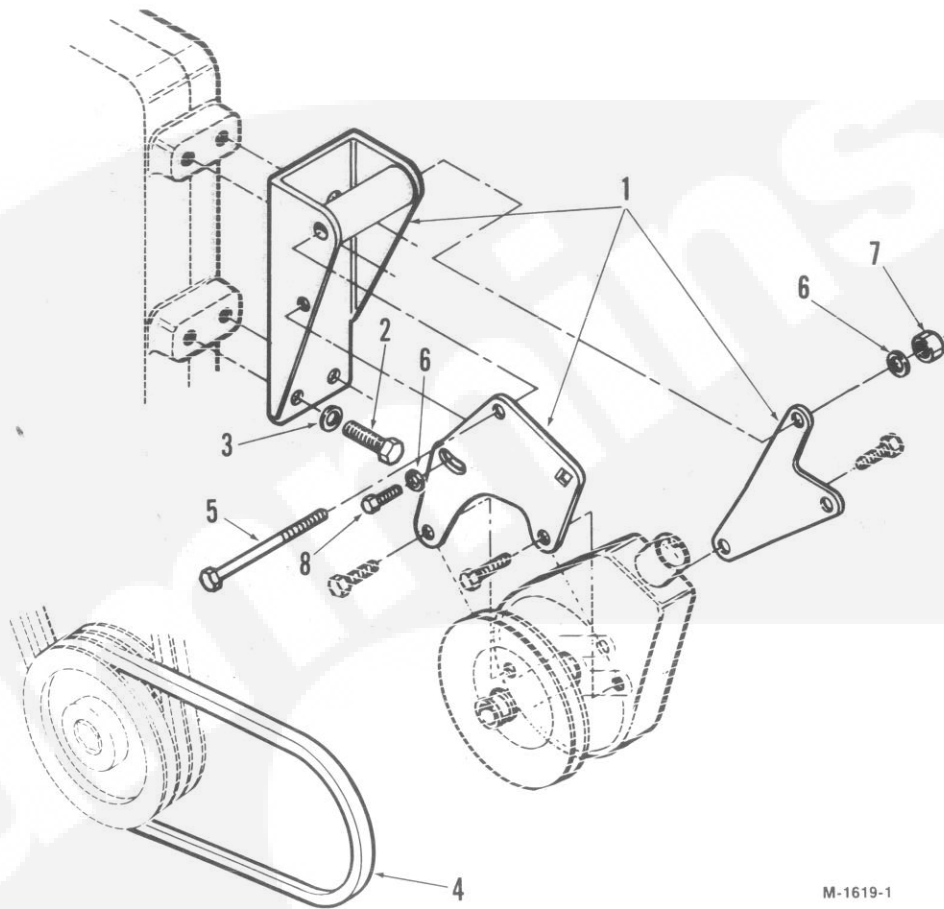


M-1626-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	403-2255-01	1	Mount, Engine - Front
2	718-1075	4	Screw, Cap - Hex Head (M12 x 35 MM)
3	370-4033	4	Spacer

# **BRAKE PUMP MOUNTING HARDWARE (GENERAL MOTORS "HYDRABOOST" PUMP)**

541-0047  
541-0103

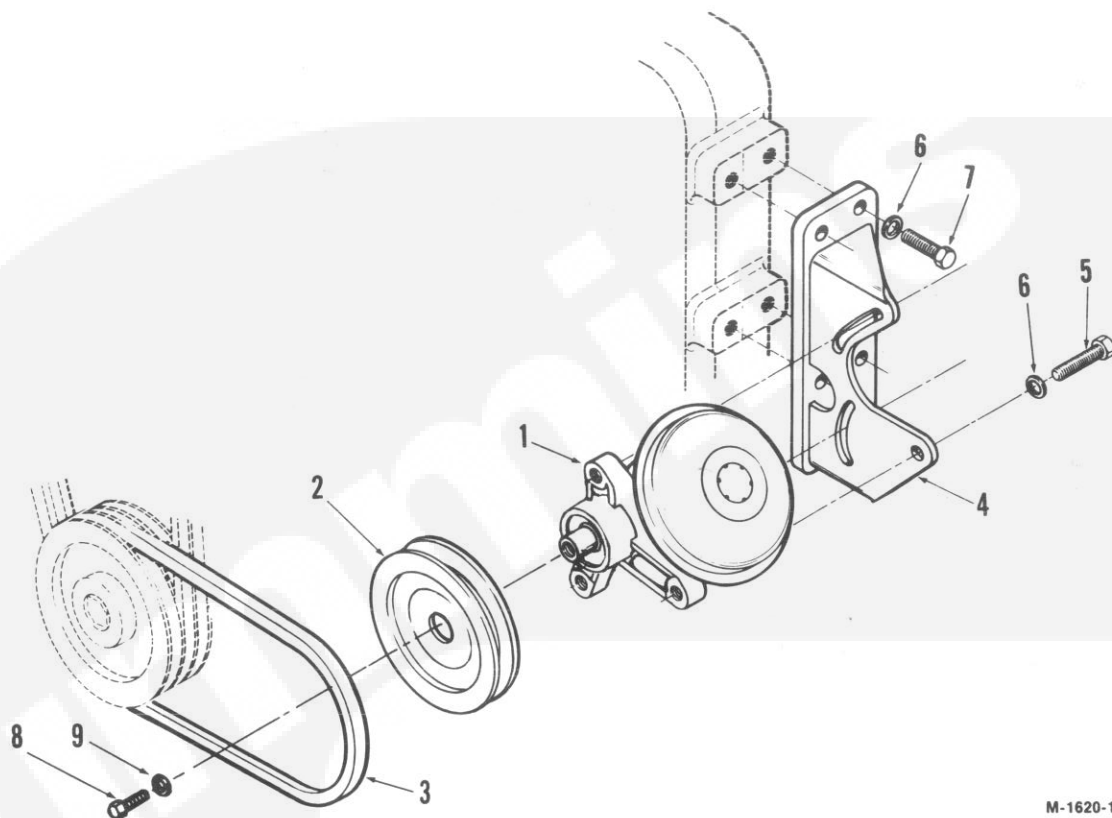


M-1619-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	120-1139	1	Bracket, Pump Mounting
2	718-1037	4	Screw, Cap - Hex Head (M8 x 25 MM)
3	740-1006	4	Washer, Flat (M8)
4	511-0147-24	1	Belt
5	800-0063	1	Screw, Cap - Hex Head (3/8-16 x 4-1/4")
6	526-0250	2	Washer, Flat (3/8")
7	862-0003	1	Nut, Hex (3/8-16)
8	800-0050	1	Screw, Cap - Hex Head (3/8-16 x 1")

# **BRAKE VACUUM PUMP (GENERAL MOTORS AND FORD)**

541-0075

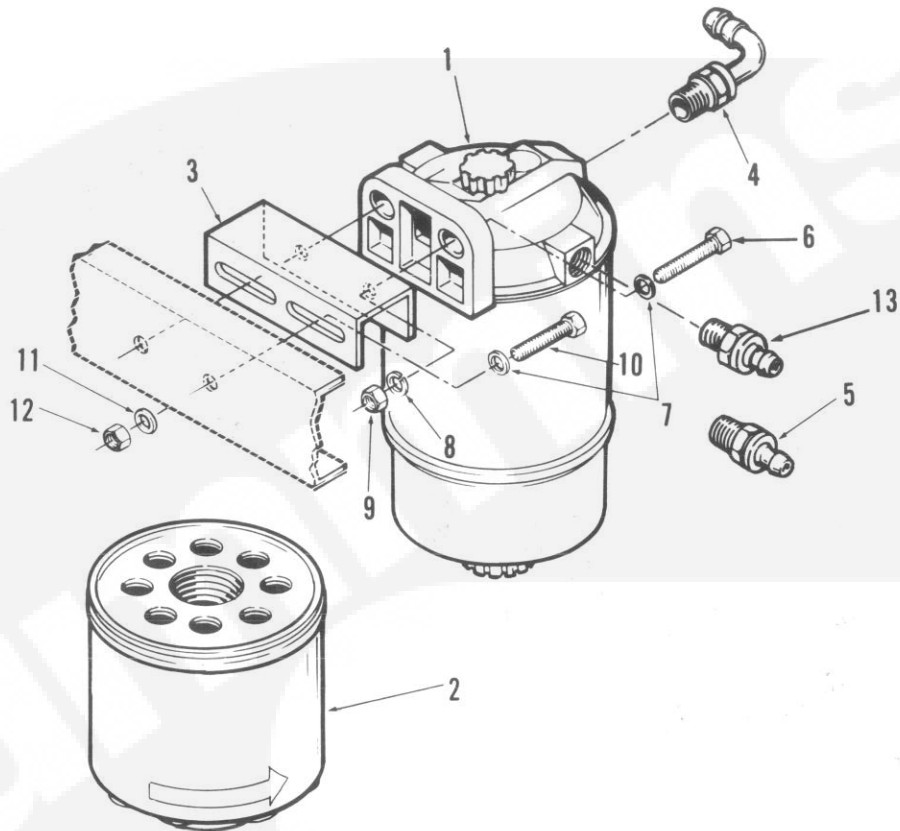


M-1620-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	145-0553	1	Pump, Vacuum
2	512-0163	1	Pulley
3	511-0147-23	1	Belt
4	145-0555-01	1	Bracket, Mounting
5	718-1038	3	Screw, Cap - Hex Head (M8 x 30 MM)
6	740-1006	7	Washer, Flat (M8)
7	718-1037	4	Screw, Cap - Hex Head (M8 x 25 MM)
8	800-0517	1	Screw, Cap - Hex Head (3/8-16 x 1")
9	526-0250	1	Washer, Flat (3/8")

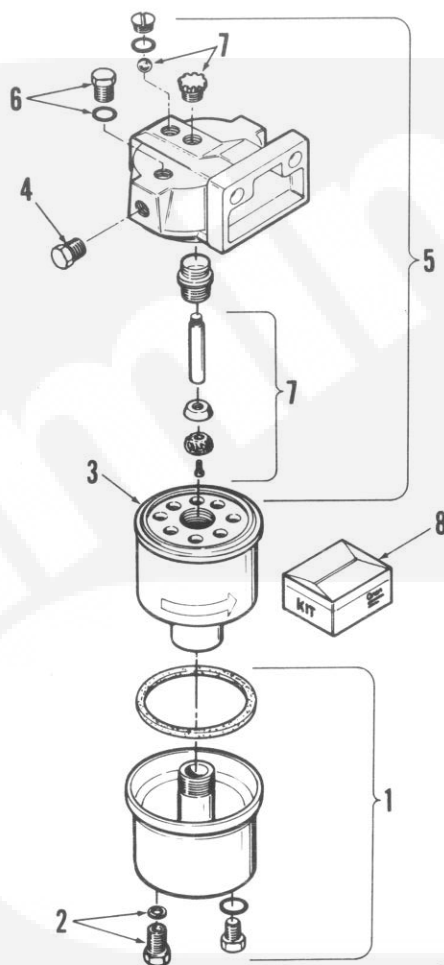
# **WATER SEPARATOR (GENERAL MOTORS AND FORD)**

541-0077



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	149-1908-05	1	Separator, Water (Includes Filter Element) (See Separate Group for Components)
2	149-1914-01	1	Element
3	149-2041-01	1	Bracket, Separator Mounting
4	502-0919	2	Elbow, Barbed Hose (90°)
5	502-0584	1	Fitting, Male Pipe (3/8" ID Hose to 1/4-18 Pipe)
6	718-1039	2	Screw, Cap - Hex Head (M8 x 35 MM)
7	740-1006	2	Washer, Flat (M8)
8	850-2008	2	Washer, Lock - Spring (M8)
9	750-1006	2	Nut, Hex (M8)
10	718-1055	2	Screw, Cap - Hex Head (M10 x 30 MM)
11	740-1008	4	Washer, Flat (M10)
12	750-1008	2	Nut, Hex (M10)
13	502-0918	1	Fitting, Barbed Hose

## WATER SEPARATOR COMPONENTS (GENERAL MOTORS AND FORD)

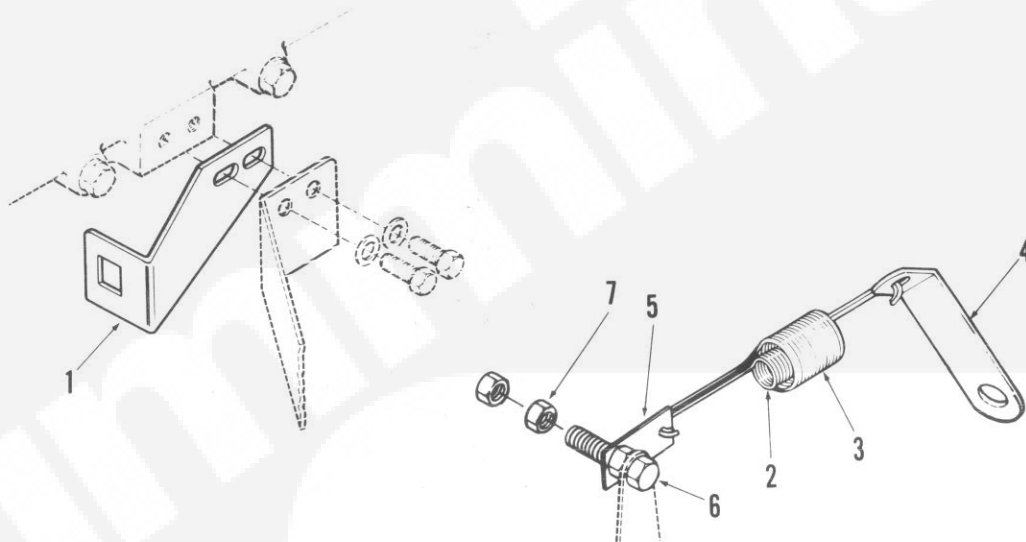


FS-1631-2

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	149-1908-05	1	Separator, Water (Complete)
1	149-2046	1	Bowl Kit, Metal - Replacement (Includes Plug, O-Rings and Drain Assembly)
2	149-1953	1	Drain Assembly (Includes Knob and Seal)
3	149-1914-01	1	Element (Includes Seals)
4	502-0153	1	Plug, Hex (1/4")
5	149-1949	1	Head Assembly - Replacement (Includes Vent Plug, O-Rings, Seal, Cap, Tube and Pump Assembly)
6	149-1952	1	Plug, Vent (Includes O-Ring)
7	149-2047	1	Pump Assembly (Includes Plunger, Retainer, Shaft, Check Ball, Knob and Screw)
8	149-2045	1	O-Ring Kit (Includes Seal and Plunger)

# **THROTTLE CONTROL** **(GENERAL MOTORS 1984 CERTIFIED ENGINE)**

541-0047  
541-0109

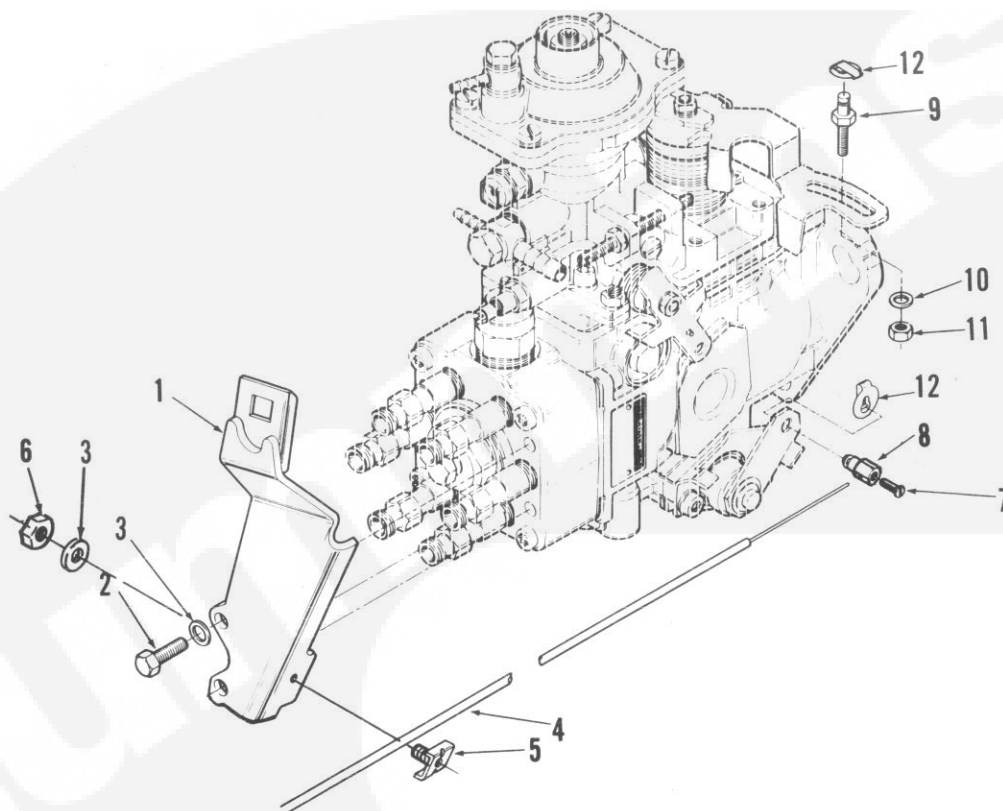


FS-1634-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	150-2074	1	Bracket, Throttle Cable
2	150-2056	1	Spring, Accelerator Return (Inner)
3	150-2066	1	Spring, Accelerator Return (Outer)
4	150-2057	1	Bracket, Spring
5	150-2086	1	Tab, Throttle Return Spring
6	800-0007	1	Screw, Cap - Hex Head (1/4-20 x 1")
7	870-0065	3	Nut, Lock (1/4-20)

# **THROTTLE CONTROL** **(GENERAL MOTORS 1985 THROUGH 1987 CERTIFIED ENGINES)**

541-0099

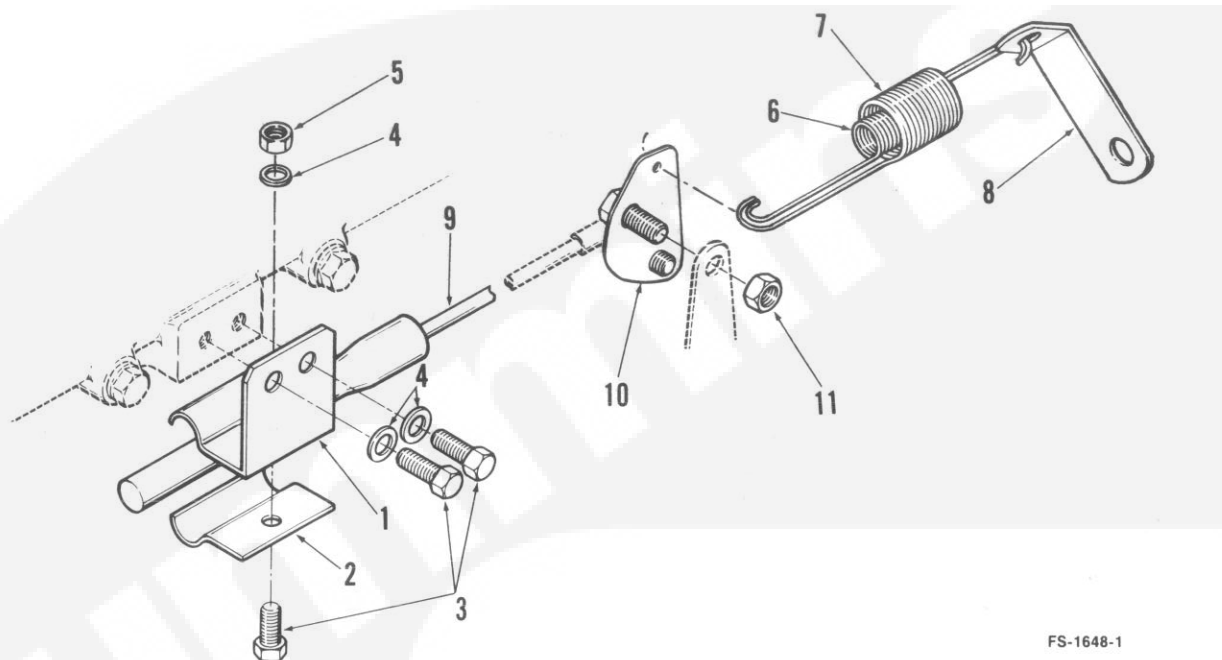


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	152-0287	1	Bracket, Throttle Cable
2	718-1021	2	Screw, Cap - Hex Head (M6 x 20 MM)
3	740-1004	3	Washer, Flat (M6)
4	153-0586	1	Cable, Cold Start
5	541-0221	1	Kit, Throttle Clamp (Includes Lock Nut With Nylon Insert)
6	870-2052	1	Nut, Lock -With Nylon Insert (M6)
7	815-0104	1	Screw, Machine - Fillister Head (#8-32 x 5/16")
8	152-0266	1	Swivel
9	152-0269	1	Pin, Throttle Cable
10	740-1002	1	Washer, Flat (M5)
11	870-2058	1	Nut, Lock (M5)
12	152-0270	2	Clip, Spring



# **THROTTLE CONTROL (FORD 1984 CERTIFIED ENGINE)**

541-0045  
541-0107

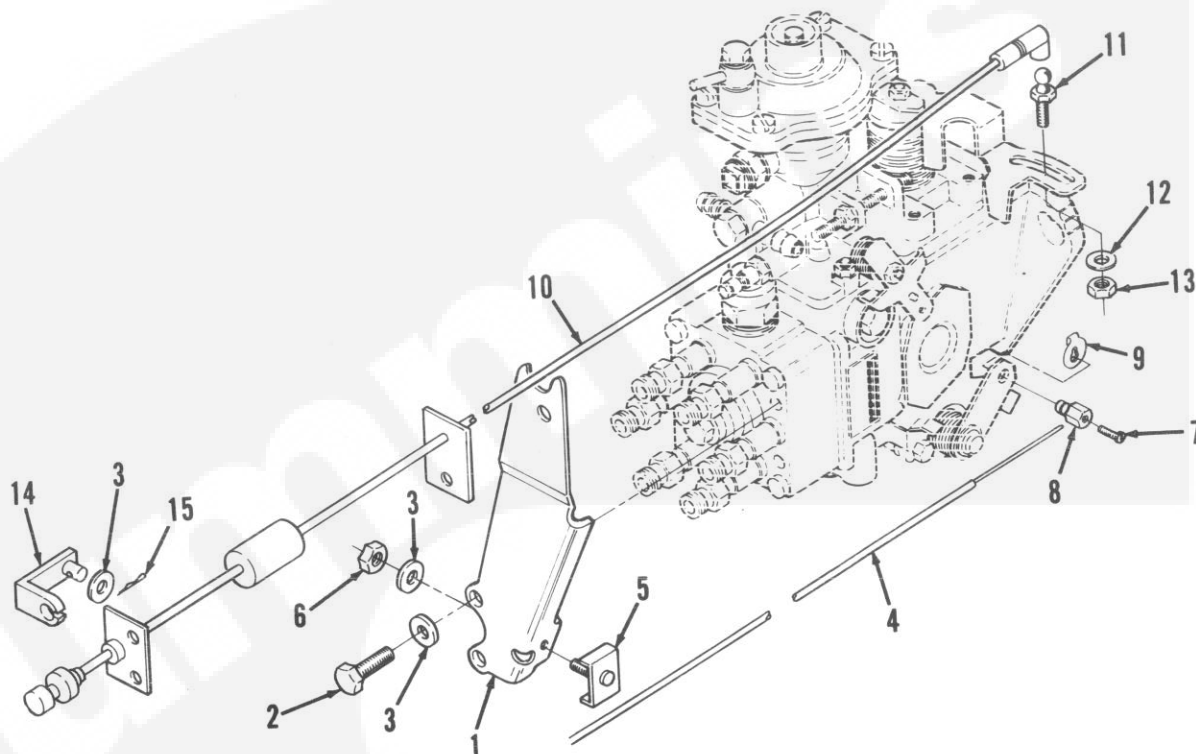


FS-1648-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	150-2055	1	Bracket, Throttle Cable
2	150-2089	1	Clip, Throttle Cable
3	718-1018	3	Screw, Cap - Hex Head (M6 x 12 MM)
4	740-1004	3	Washer, Flat (M6)
5	750-1004	1	Nut, Hex (M6)
6	150-2056	1	Spring, Accelerator Return (Inner)
7	150-2066	1	Spring, Accelerator Return (Outer)
8	150-2057	1	Bracket, Spring
9	150-2065	1	Cable, Accelerator
10	150-2058	1	Stud, Ball
11	870-0217	1	Nut, Lock (1/4-28)

# **THROTTLE CONTROL** **(FORD 1985 THROUGH 1987 CERTIFIED ENGINE)**

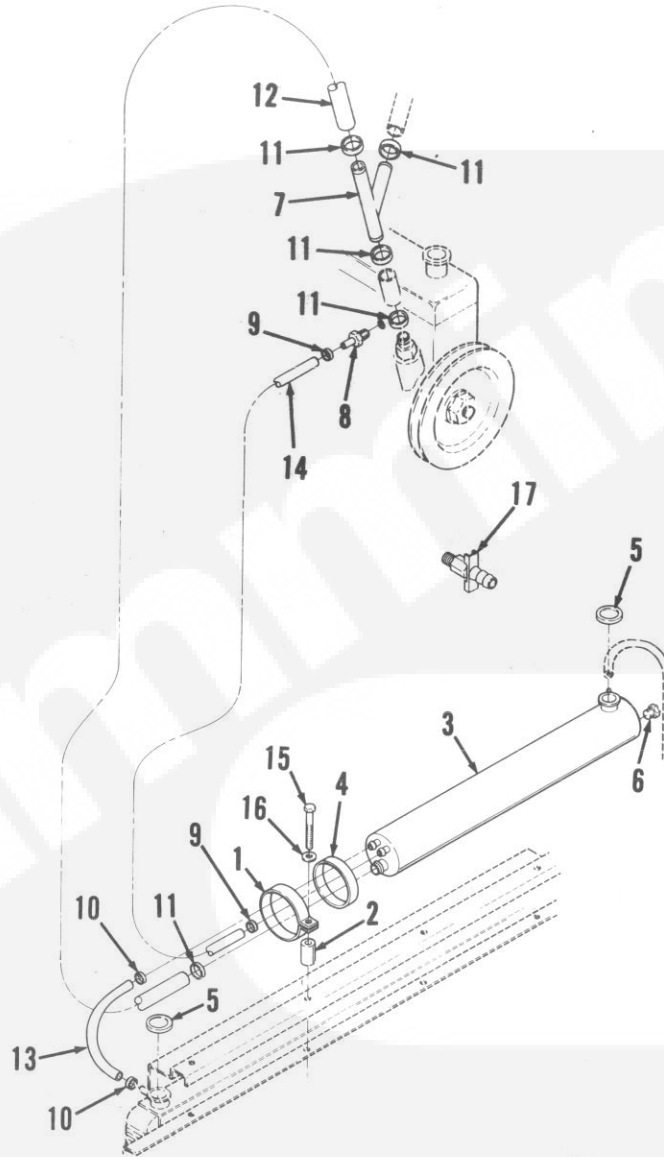
541-0167



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	152-0285	1	Bracket, Throttle Cable
2	718-1021	2	Screw, Cap - Hex Head (M6 x 20 MM)
3	740-1004	4	Washer, Flat (M6)
4	153-0586	1	Cable, Cold Start
5	541-0221	1	Kit, Throttle Clamp (Includes Lock Nut With Nylon Insert)
6	870-2052	1	Nut, Lock - With Nylon Insert (M6)
7	815-0104	1	Screw, Machine - Fillister Head (#8-32 x 5/16")
8	152-0266	1	Swivel
9	152-0270	1	Clip, Spring
10	152-0294	1	Cable, Throttle
11	150-2136	1	Joint, Ball
12	526-0009	2	Washer, Flat (#10)
13	870-0328	1	Nut, Lock (#10-32)
14	152-0293	1	Adapter, Throttle
15	516-0039	1	Pin, Cotter (3/32" x 5/8")

# DEAERATION TANK (GENERAL MOTORS)

541-0210

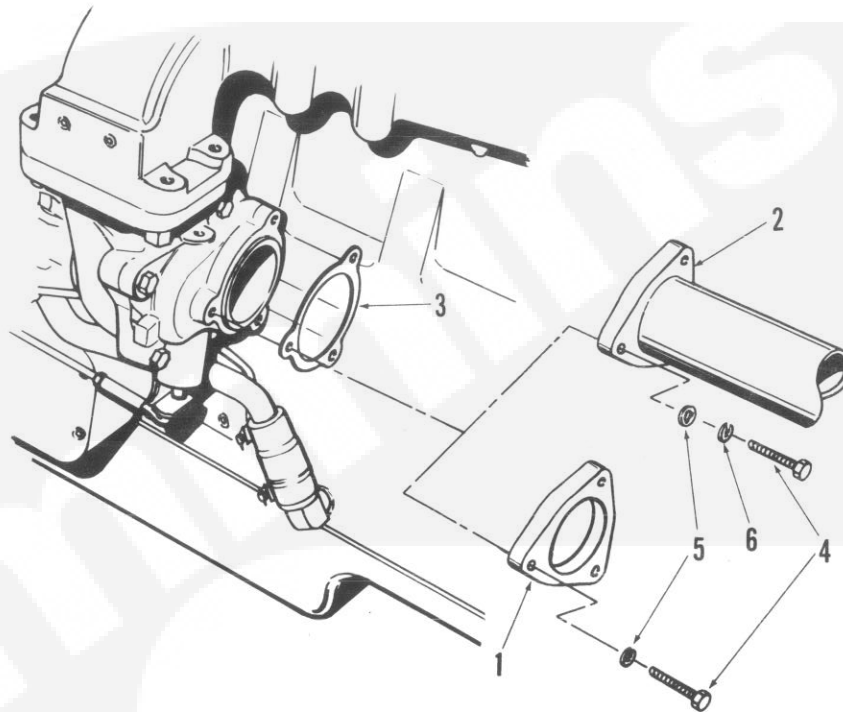


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	541-0210	1	Kit, Deaeration Tank (Includes Parts Listed Below)
1	130-3106	2	Strap, Mounting
2	130-3107-01	2	Spacer, Mounting
3	130-3119	1	Tank, Surge
4	130-3120	2	Gasket, Mounting
5	130-2760	2	Cap, Pressure
6	502-0028	1	Plug, Pipe - Hex Head (1/8")
7	502-1027	1	Connector, Hose - "Y"
8	502-1028	1	Connector, Hose (3/8" Pipe to 3/8" Hose)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
9	503-0446	2	Clamp, Hose (13/16")
10	503-0685	2	Clamp, Hose (5/8")
11	503-1136	5	Clamp, Hose (1-1/4")
12	503-0973	1	Hose (3/4" ID x 20")
13	503-1312	1	Hose (5/16" ID x 12")
14	503-1408	1	Hose (3/8" ID x 24")
15	800-0037	2	Screw, Cap - Hex Head (5/16-18 x 3")
16	526-2109	2	Washer, Flat (M8)
17	502-1047	1	Valve, Bleeder - Heater Core (1/8")

## EXHAUST SYSTEM (GENERAL MOTORS AND FORD)

541-0045  
541-0047  
541-0083  
541-0100

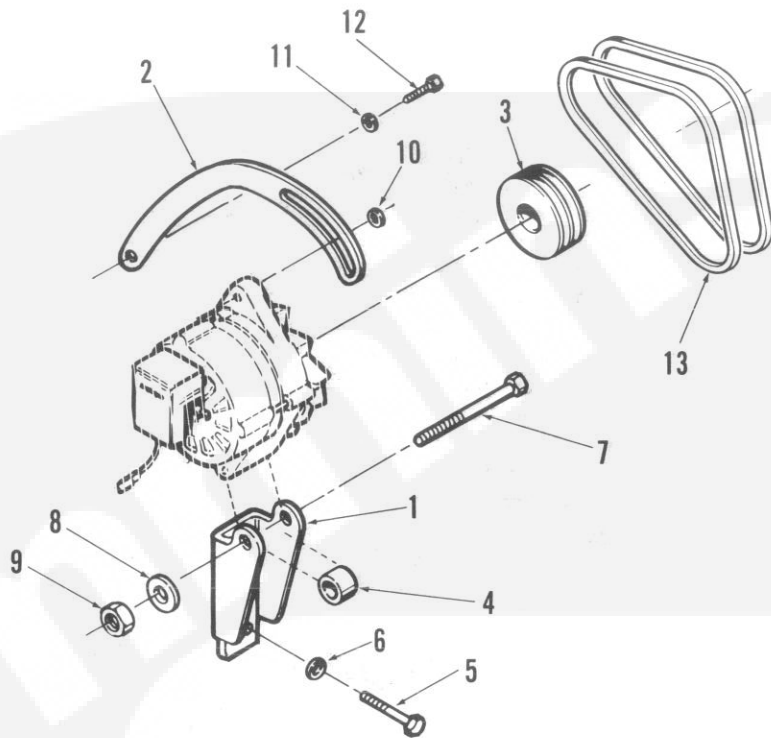


EXS-1141-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	154-2531	1	Flange, Exhaust - Ford
2	154-2532	1	Pipe, Exhaust - General Motors
3	154-2530	1	Gasket, Exhaust
4	718-1037	3	Screw, Cap - Hex Head (M8 x 25 MM)
5	740-1006	3	Washer, Flat (M8)
6	850-2008	3	Washer, Lock - Spring (M8) General Motors

## ALTERNATOR MOUNTING HARDWARE (GENERAL MOTORS AND FORD)

541-0045  
541-0047  
541-0096  
541-0106  
541-0108

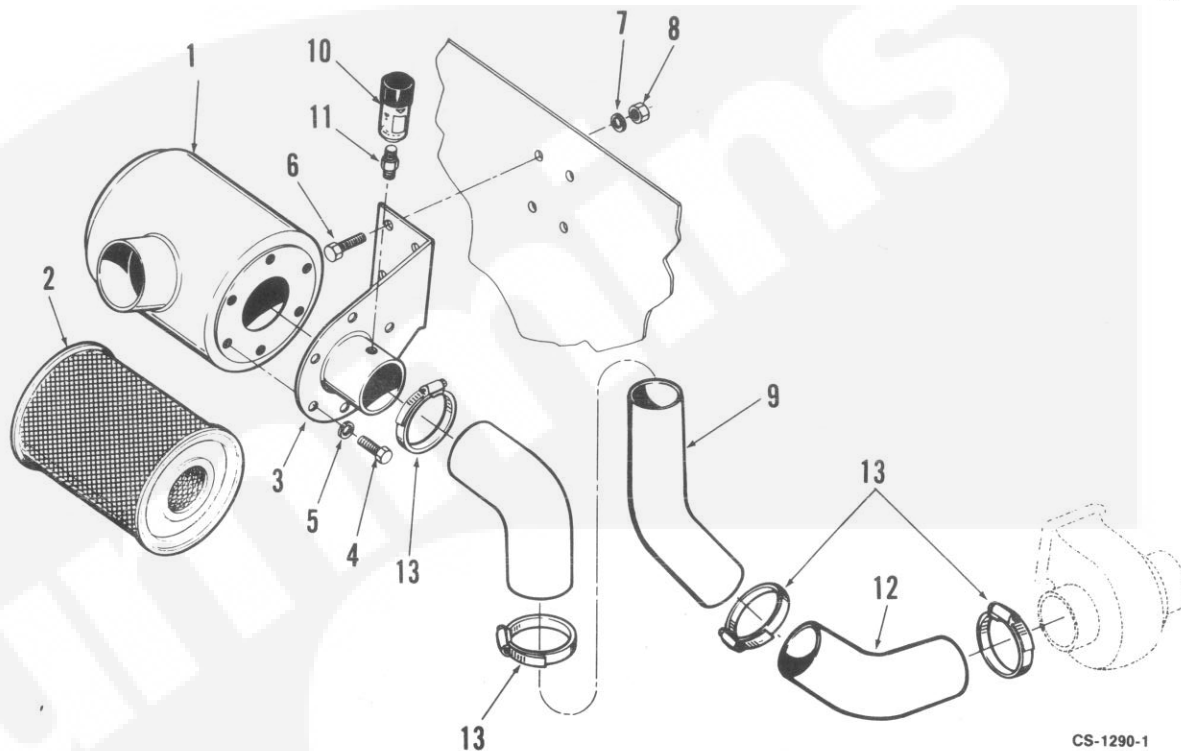


ES-1170-2

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	BRACKET, ALTERNATOR MOUNTING			8	WASHER		
	191-1332	1	1984 Certified Engine General Motors		740-1008	1	Flat (M10) General Motors
	191-1624	1	Ford		850-0054	1	Lock - Spring (7/16") Ford
	191-1773-01	1	1985 through 1987 Certified Engine	9	NUT, HEX		
2	STRAP, ALTERNATOR ADJUSTING				750-1008	1	M10 - General Motors
	191-1625	1	1984 Certified Engine		862-0004	1	7/16-14 - Ford
	191-1772-01	1	1985 through 1987 Certified Engine	10	WASHER, FLAT		
3	191-1336	1	Pulley, Alternator		526-0213	1	5/16"
4	SPACER, ALTERNATOR BRACKET				526-0250	1	3/8"
			General Motors	11	740-1006	1	Washer, Flat (M8) 1985 through 1987 Certified Engine
			1984 Certified Engine	12	718-1036	1	Screw, Cap - Hex Head (M8 x 20 MM) 1985 through 1987 Certified Engine
	191-1583	1	7 MM Thick	13	BELT		
	191-1584	1	4.5 MM Thick		511-0147-15	2	1984 Certified Engine
	191-1744	1	1985 through 1987 Certified Engine		511-0147-16	2	1985 through 1987 Certified Engine
	191-1669	2	Ford				
5	718-1037	4	Screw, Cap - Hex Head (M8 x 25 MM)				
6	740-1006	4	Washer, Flat (M8)				
7	SCREW, CAP - HEX HEAD						
			General Motors				
	718-1067	1	M10 x 90 MM - 1984 Certified Engine				
	718-1070	1	M10 x 120 MM - 1985 through 1987 Certified Engine				
	800-0084	1	Ford - 7/16-14 x 4-1/2"				

# **AIR CLEANER** **(GENERAL MOTORS AND FORD** **WITH VACUUM BRAKES)**

541-0045  
541-0082

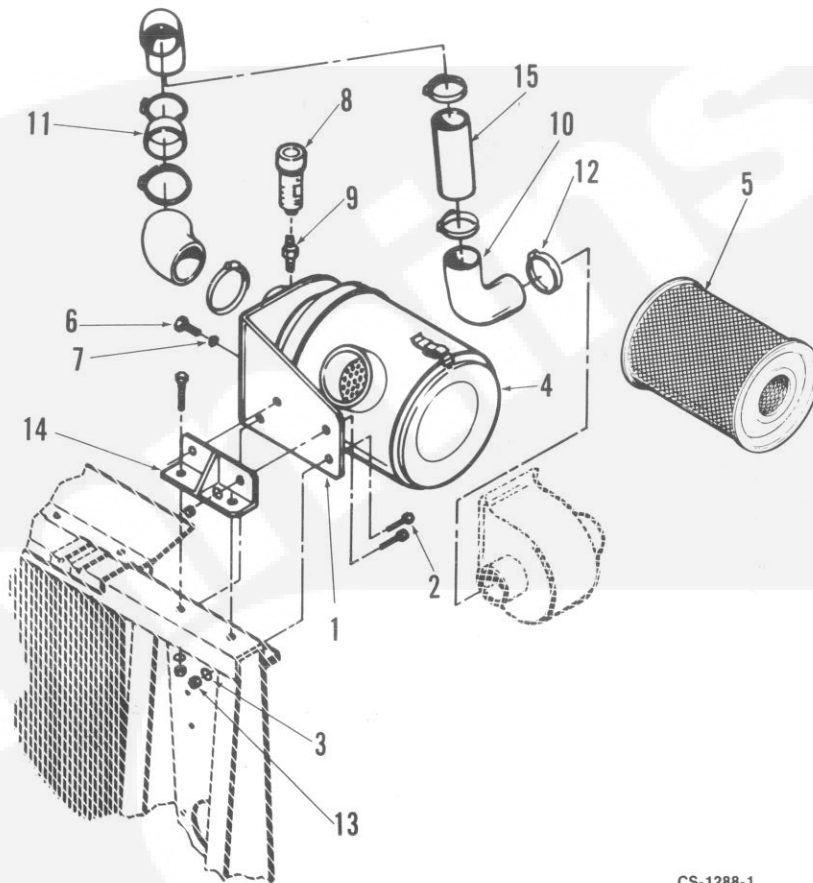


CS-1290-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	140-1930	1	Cleaner, Air (Includes Element)
2	140-1955	1	Element, Air Cleaner
3	140-1928-01	1	Bracket, Mounting
4	800-0026	6	Screw, Cap - Hex Head (5/16-18 x 3/4")
5	850-0045	6	Washer, Lock - Spring (5/16")
6	718-1055	4	Screw, Cap - Hex Head (M10 x 30 MM)
7	740-1008	4	Washer, Flat (M10)
8	750-1008	4	Nut, Hex (M10)
9	140-1929	1	Tube, Air Inlet
10	140-1931	1	Indicator, Restriction
11	140-1260	1	Fitting, Indicator Mounting
12	140-1864	2	Elbow, Air Cleaner (90°)
13	503-1142	4	Clamp, Hose

**AIR CLEANER**  
**(GENERAL MOTORS WITH "HYDRABOOST"**  
**BRAKES AND/OR POWER STEERING)**

541-0047  
541-0101

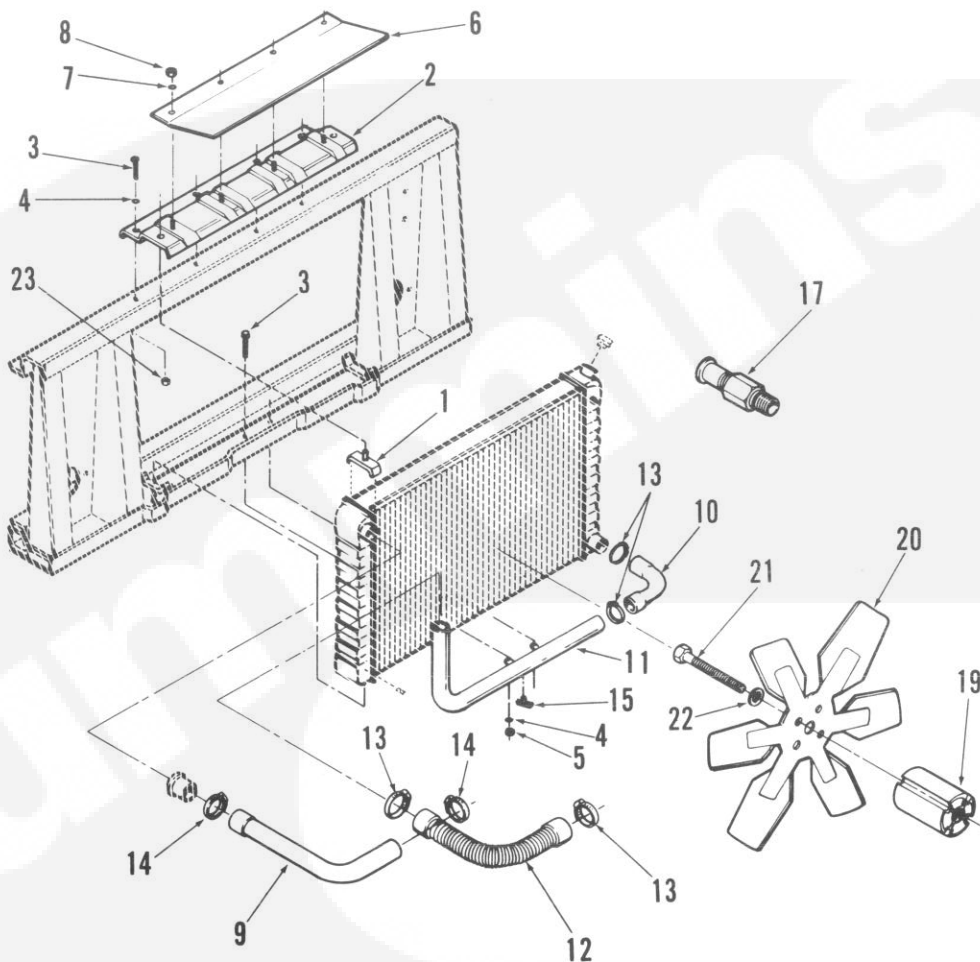


CS-1288-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	140-1939	1	Bracket, Mounting
2	800-0028	6	Screw, Cap - Hex Head (5/16-18 x 1")
3	850-0045	6	Washer, Lock - Spring (5/16")
4	140-1930	1	Cleaner, Air (Includes Element)
5	140-1955	1	Element, Air Cleaner
6	800-0026	6	Screw, Cap - Hex Head (5/16-18 x 3/4")
7	850-0045	6	Washer, Lock - Spring (5/16")
8	140-1931	1	Indicator, Restriction
9	140-1260	1	Fitting, Indicator Mounting
10	140-1864	3	Elbow, Air Cleaner (90°)
11	140-1967-02	1	Tube, Air Inlet (254 MM)
12	503-1142	6	Clamp, Hose
13	862-0015	6	Nut, Hex (5/16-18)
14	140-2014-01	1	Bracket, Mounting
15	140-1967-03	1	Tube, Air Inlet (203 MM)

## COOLING SYSTEM (GENERAL MOTORS)

541-0047  
541-0081



CS-1294-1

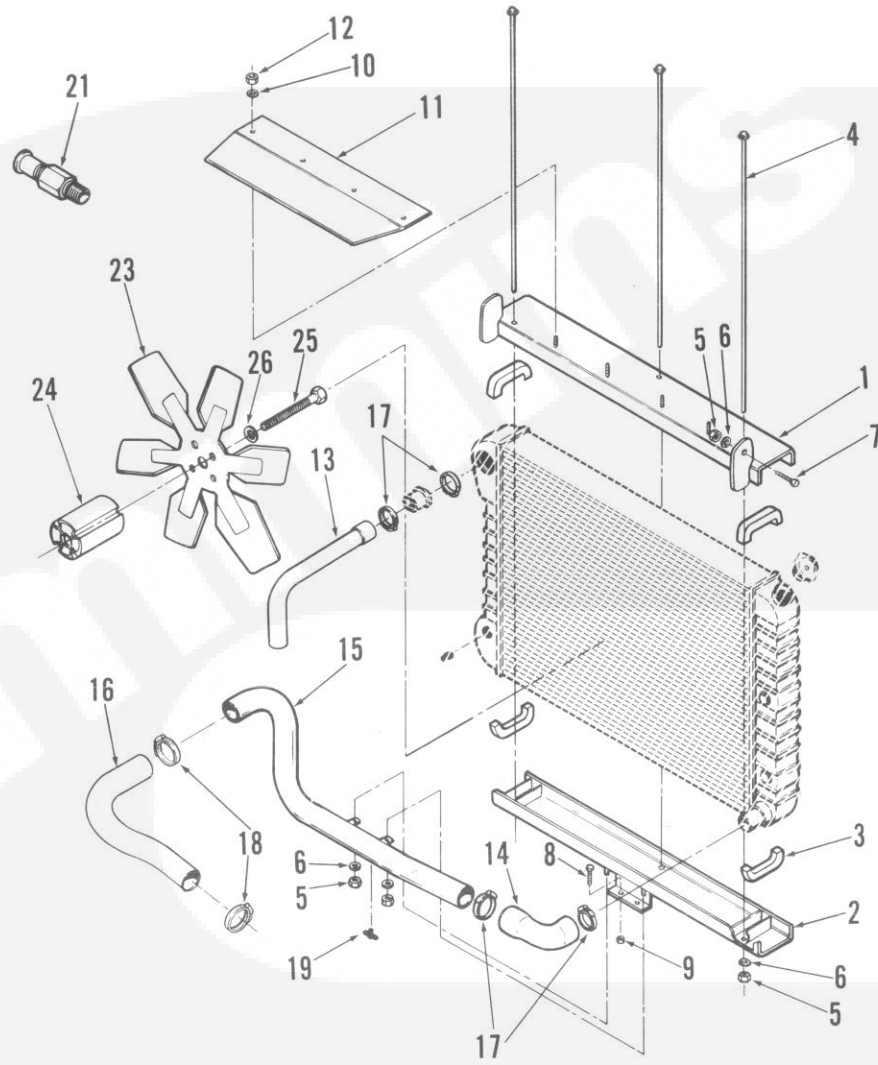
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-2700	4	Pad, Radiator Mounting
2	130-2782	1	Panel, Radiator Mounting
3	800-0028	6	Screw, Cap - Hex Head (5/16-18 x 1")
4	526-0115	6	Washer, Flat (5/16")
5	870-0399	2	Nut, Lock (5/16-18)
6	130-2783	1	Guard, Fan
7	526-0015	4	Washer, Flat (1/4")
8	870-0218	4	Nut, Lock (1/4-20)
9	503-1363	1	Hose, Radiator Inlet
10	503-1368	1	Hose, Radiator Outlet
11	130-2734-01	1	Tube, Radiator Outlet
12	503-0753	1	Hose, Flexible
13	503-1142	4	Clamp, Hose (SAE 36)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
14	503-1140	2	Clamp, Hose (SAE 28)
15	504-0003	1	Valve, Drain
17	505-1343	2	Nipple (Coolant Pump Mounted)
19	130-2699-01	1	Spacer, Fan (32 MM)
20	130-3150	1	Fan
21	718-1043	4	Screw, Cap - Hex Head (M8 x 55 MM)
22	740-1006	4	Washer, Flat (M8)
23	870-0399	4	Nut, Lock (5/16-18) (Not Required on Some Installations)



# **COOLING SYSTEM (FORD)**

541-0045  
541-0080



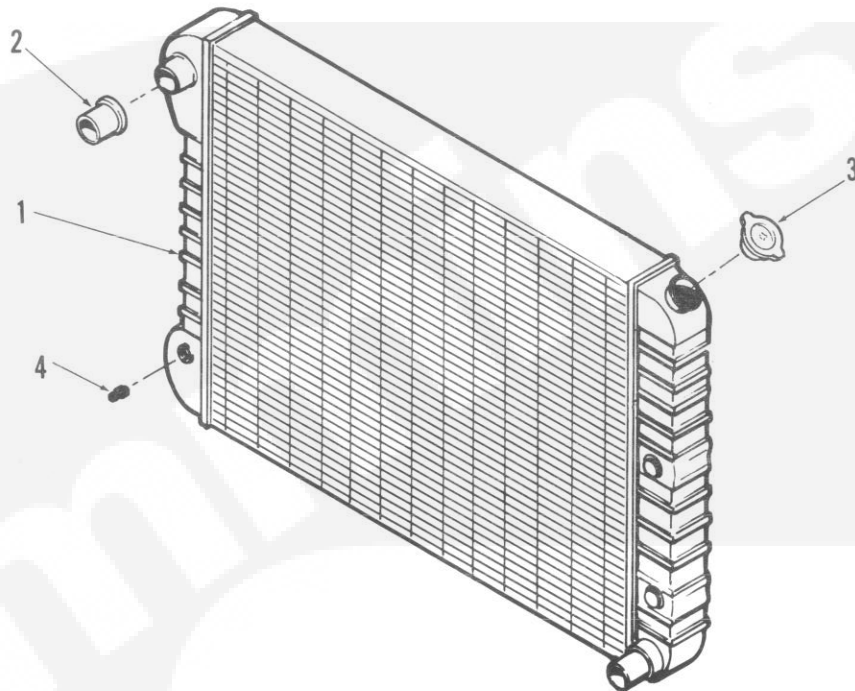
CS-1292-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-2739-01	1	Support, Radiator - Upper
2	130-2740-01	1	Support, Radiator - Lower
3	130-2738	4	Pad, Radiator Mounting
4	816-0139	3	Rod, Tie
5	870-0399	7	Nut, Lock (5/16-18)
6	526-0115	7	Washer, Flat (5/16")
7	800-0028	2	Screw, Cap - Hex Head (5/16-18 x 1")
8	800-0075	2	Screw, Cap - Hex Head (7/16-14 x 2")
9	870-0330	2	Nut, Lock (7/16-14)
10	526-0015	4	Washer, Flat (1/4")
11	130-2778	1	Guard, Fan
12	870-0218	4	Nut, Lock (1/4-20)
13	503-1426	1	Hose, Radiator Inlet

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
14	503-1368	1	Hose, Radiator Outlet
15	130-2741	1	Tube, Radiator Outlet
16	503-1425	1	Hose, Water Pump Inlet
17	503-1142	4	Clamp, Hose (SAE 36)
18	503-1140	2	Clamp, Hose (SAE 28)
19	504-0003	1	Valve, Drain
21	505-1343	2	Nipple (Coolant Pump Mounted)
23	130-3150	1	Fan
24	130-2699-01	1	Spacer, Fan (32 MM)
25	718-1043	4	Screw, Cap - Hex Head (M8 x 55 MM)
26	740-1006	4	Washer, Flat (M8)

# **RADIATOR** **(GENERAL MOTORS AND FORD)**

541-0045  
541-0047  
541-0078

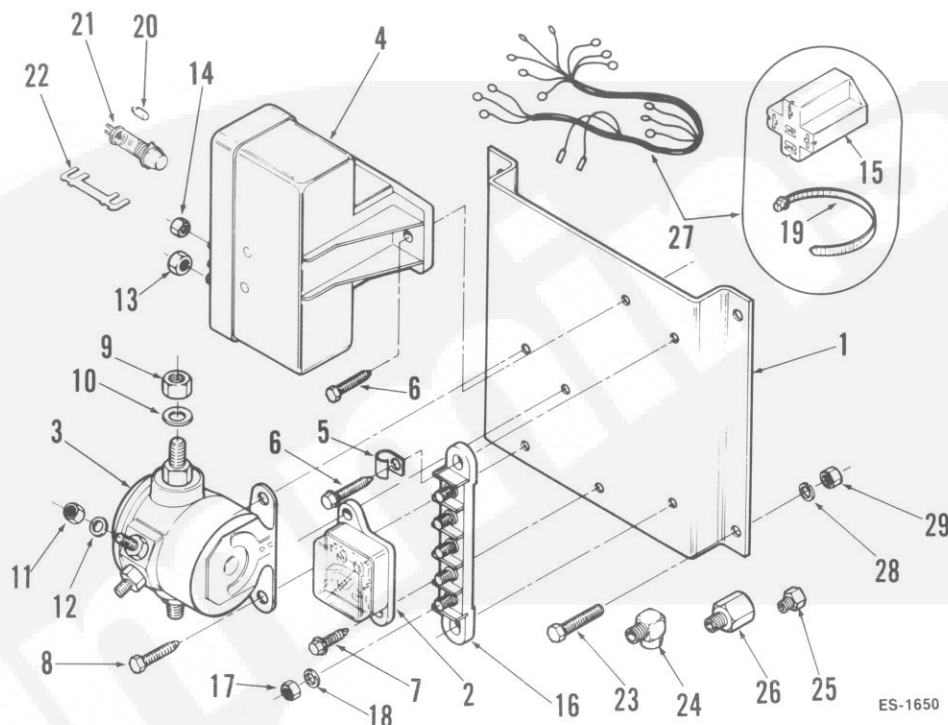


CS-1292-2

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-2723	1	Radiator
2	503-1407	1	Hose, Reducer
3	130-2760	1	Cap, Radiator
4	505-0846	1	Plug, Hex (1/4")

## ELECTRICAL SYSTEM (GENERAL MOTORS AND FORD)

541-0045  
541-0047  
541-0084



ES-1650

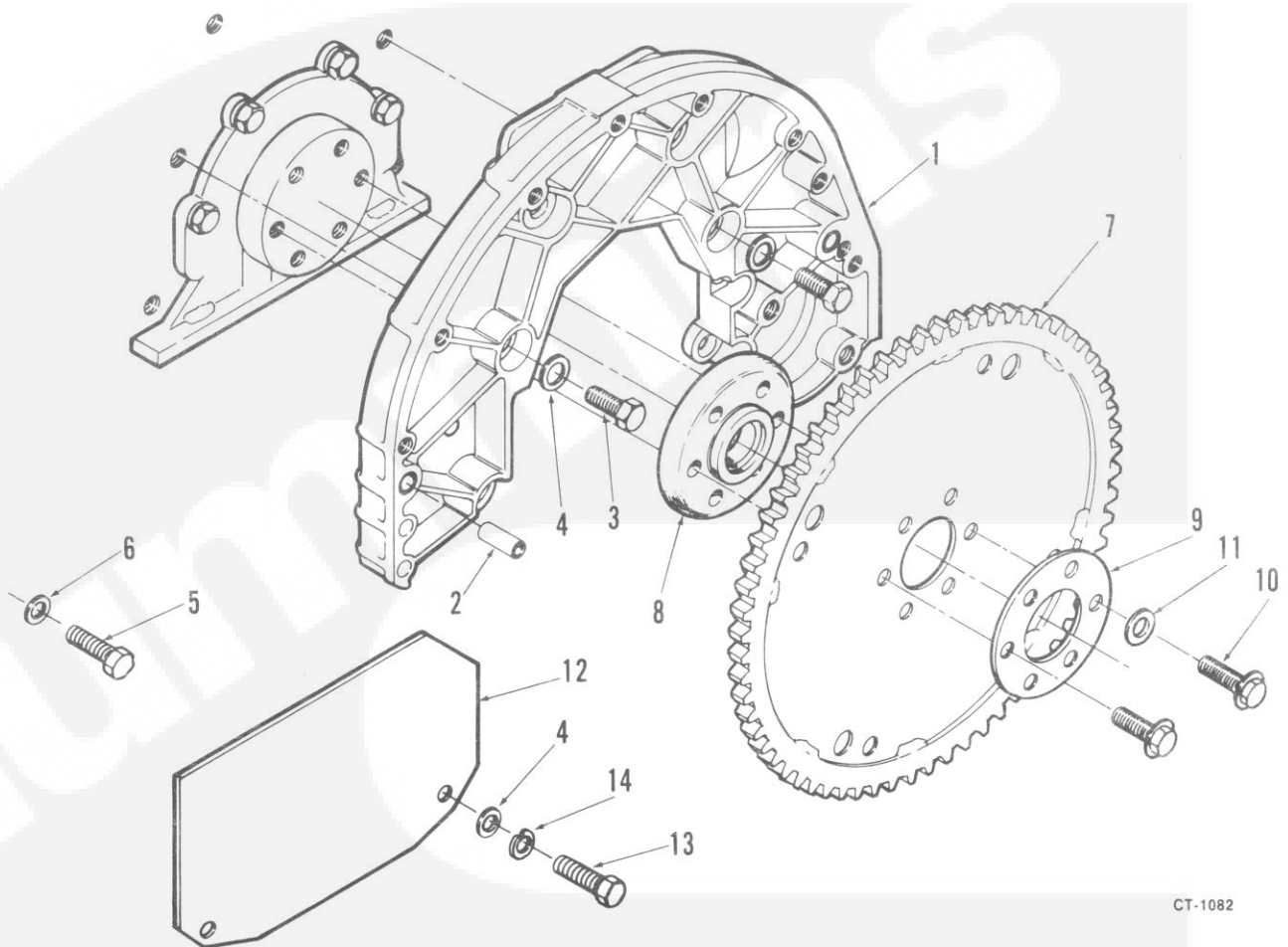
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	301-9075	1	Bracket, Mounting
2	321-0263	1	Holder, Fuse (Fuse Not Included)
3	307-0845	1	Relay, Start Solenoid
4	333-0245	1	Controller, Glow Plug
5	332-2344	1	Clamp, Loop
6	815-0139	3	Screw, Hex Head - Thread Cutting (1/4-20 x 3/4")
7	815-0518	2	Screw, Hex Washer Head - Thread Cutting (6-32 x 5/8")
8	815-0315	2	Screw, Hex Head - Thread Cutting (1/4-20 x 1/2")
9	862-0015	2	Nut, Hex (5/16-18)
10	526-0022	2	Washer, Flat (5/16")
11	860-0011	2	Nut, Hex (10-24)
12	850-0030	2	Washer, Lock - Spring (#10)
13	750-1004	1	Nut, Hex (M6)
14	750-1002	1	Nut, Hex (M5)
15	307-1690	1	*Plug, Relay
16	332-2727	1	*Block, Terminal - Five Place
17	870-0053	5	*Nut, Hex (10-32)
18	850-0030	5	*Washer, Lock - Spring (#10)
19	332-0942	20	*Tie, Cable
20	322-0353	1	Lamp, Indicator

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
21	322-0354	1	Light, Indicator (Lamp Not Included)
22	321-0262-01	1	Fuse (80 Amp)
23	SCREW 815-0335	4	Hex Head - Sheet Metal (#10) (1984 Certified Engine)
	800-0007	4	Hex Head - Cap (1/4-20 x 1") (Begin 1985 Certified Engine)
24	502-0969	1	Elbow, Street - 90° (1/8") (Oil Pressure Sender) General Motors and Ford
25	502-0946	1	Adapter, Reducing (1/4" to 1/8") (Oil Pressure Sender) Ford
26	BUSHING, REDUCER - 505-0021	1	Water Temperature Sender 3/4" to 1/2" - General Motors
	505-0131	1	3/4" to 3/8" - Ford
27	HARNES, WIRING 338-1846	1	Three Wire
	338-1901	1	Twelve Wire (Includes Parts Marked *)
28	850-0040	4	Washer, Lock (1/4") (Begin 1985 Certified Engine)
29	862-0001	4	Nut, Hex (1/4-20) (Begin 1985 Certified Engine)

\* - Parts Included in 338-1901 Wiring Harness.

# TRANSMISSION ADAPTER AND FLEXPLATE (FORD C-6 AUTOMATIC TRANSMISSION)

541-0035



CT-1082

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	190-0622-02	1	Adapter Assembly, Transmission (Includes Dowel Pins)
2	516-0217	2	Pin, Dowel
3	718-1076	6	Screw, Cap - Hex Head (M12 x 40 MM)
4	740-1801	8	Washer, Flat (M12)
5	SCREW, CAP - HEX HEAD		
	800-0073	6	#7/16-14 x 1-1/2"
	800-0052	1	#3/8-16 x 1-1/2"
	800-0031	1	#5/16-18 x 1-1/2"
6	WASHER		
	525-0034	6	#Flat - 7/16" Lock (Spring)
	850-0050	1	# 3/8"
	850-0045	1	# 5/16"

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
7	104-1667	1	Flexplate
8	104-1536	1	Hub, Flexplate
9	104-1497	1	Clamp, Flexplate
10	720-1804	6	Screw, Cap - Flange Hex Head (M10 x 38 MM)
11	740-1008	6	Washer, Flat (M10)
12	190-0607	1	Guard, Stone
13	800-0069	2	Screw, Cap - Hex Head (7/16-14 x 3/4")
14	850-0055	2	Washer, Lock - Spring (7/16")

# - Indicates Mounting Hardware to Attach the Ford C-6 Automatic Transmission to the Onan Transmission Adapter.

**TRANSMISSION ADAPTER  
(GENERAL MOTORS MANUAL TRANSMISSION)  
(FORD LIGHT AND HEAVY DUTY MANUAL TRANSMISSION)  
(1984, 1985 CERTIFIED ENGINES)**

541-0032  
541-0033  
541-0034

190-0677-01  
-02

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	ADAPTER ASSEMBLY, TRANSMISSION (Includes Dowel Pins) (Mounting Hardware Indicated by *)		
	190-0622-01	1	General Motors
	190-0622-02	1	Ford
2	PIN, DOWEL		
	516-0218	2	General Motors
	516-0217	2	Ford
3	718-1076	6	*Screw, Cap - Hex Head (M12 x 40 MM)
4	740-1801	6	*Washer, Flat (M12)
5	SHIELD, DUST		
	190-0625	1	General Motors
			Ford
	190-0627	1	Light Duty
	190-0623-XX	1	Heavy Duty
6	190-0629	1	Plate, Clutch Housing - Ford
			Heavy Duty (Mounting Hardware Indicated by #)
7	SCREW, CAP - HEX HEAD		
	800-0082	3	#7/16-14 x 3-3/4"
	800-0071	3	#7/16-14 x 1"
8	526-0249	6	#Washer, Flat (7/16")
9	862-0004	3	#Nut, Hex (7/16-14)
10	SCREW, CAP - HEX HEAD		
	718-1057	6	+M10 x 40 MM
	718-1061	2	+M10 x 40 MM
11	740-1008	6	+Washer, Flat (M10)

+ - Indicates Mounting Hardware to Attach the General Motors Clutch Housing to the Onan Transmission Adapter.

**FLYWHEEL  
(GENERAL MOTORS MANUAL TRANSMISSION)  
(FORD LIGHT AND HEAVY DUTY MANUAL TRANSMISSION)  
(1984, 1985 CERTIFIED ENGINES)**

541-0032  
541-0033  
541-0034

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	FLYWHEEL ASSEMBLY (Includes Ring Gear and Alignment Pin)		
			Ford
	104-1671	1	Light Duty
	104-1670	1	Heavy Duty (Includes Clutch Pilot Bearing)
	104-1672	1	General Motors (Includes Bushing)
2	104-1666	1	Gear, Ring
3	104-1171	1	Pin, Alignment
4	SCREW, CAP - HEX HEAD		
			Ford
	720-1805	6	Light Duty (Flanged Hex Head) (M10 x 45 MM)
	720-1060	6	Heavy Duty (M10 x 55 MM)
	720-1059	6	General Motors (M10 x 50 MM)
5	510-0146	1	Bearing, Clutch Pilot (Ford Heavy Duty Manual Transmission)
6	104-1036	1	Plate, Washer
7	190-0681	1	Bushing - General Motors

**TRANSMISSION ADAPTER**  
**(GENERAL MOTORS MANUAL TRANSMISSION)**  
**(FORD LIGHT AND HEAVY DUTY MANUAL TRANSMISSION)**  
**(1986 THROUGH MARCH, 1987 CERTIFIED ENGINES)**

541-0141  
541-0142  
541-0143

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	ADAPTER, TRANSMISSION (Mounting Hardware Indicated by *)		
	190-0618-XX	1	General Motors
	190-0608-XX	1	Ford
2	PIN, DOWEL		
	516-0218	2	General Motors
	516-0217	2	Ford
3	718-1076	6	*Screw, Cap - Hex Head (M12 x 40 MM)
4	740-1801	6	*Washer, Flat (M12)
5	SHIELD, DUST		
	190-0625	1	@General Motors (Used With Aluminum Housing) Ford
	190-0627	1	Light Duty (Flywheel Underpan)
	190-0623-XX	1	Heavy Duty (Flywheel Underpan)
6	190-0629	1	Plate, Clutch Housing - Ford Heavy Duty (Mounting Hardware Indicated by #)
7	SCREW, CAP - HEX HEAD		
	800-0082	3	#7/16-14 x 3-3/4"
	800-0071	3	#7/16-14 x 1"
8	526-0249	6	#Washer, Flat (7/16")
9	862-0004	3	#Nut, Hex (7/16-14)
10	SCREW, CAP - HEX HEAD		
	718-1057	6	+M10 x 40 MM
	718-1061	2	+M10 x 40 MM
11	740-1008	6	+Washer, Flat (M10)

+ - Indicates Mounting Hardware to Attach the General Motors Clutch Housing to the Onan Transmission Adapter.

@ - Part number 104-1664-01, Flywheel Cover, is required for "open bottom" clutch housings.

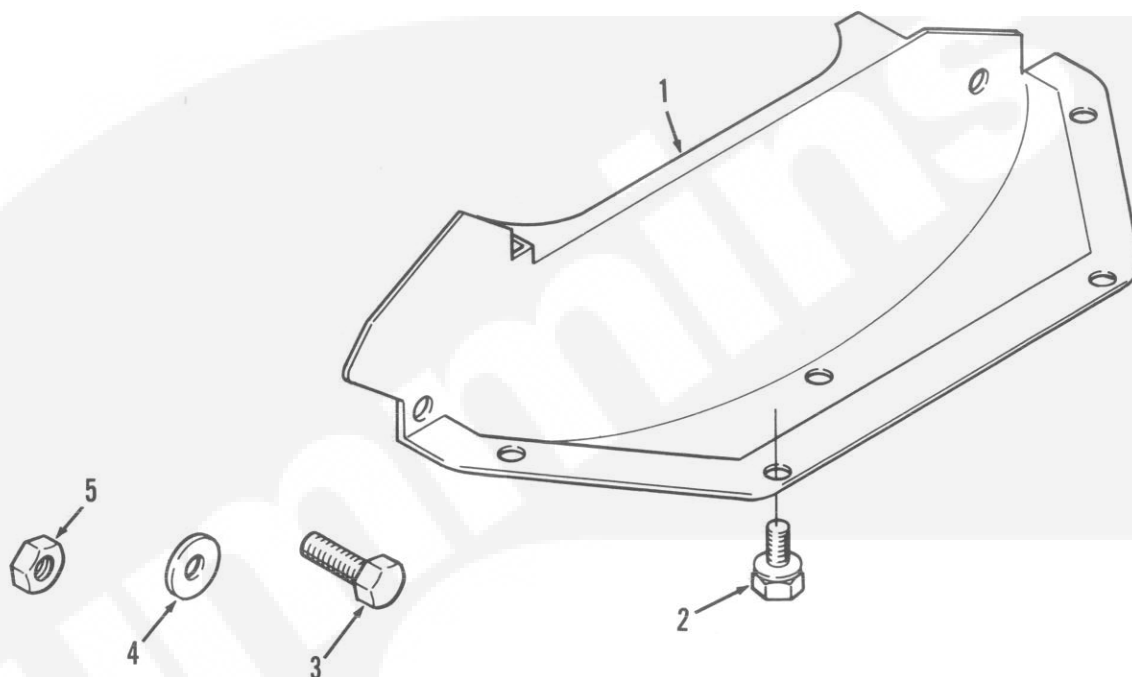
**FLYWHEEL**  
**(GENERAL MOTORS MANUAL TRANSMISSION)**  
**(FORD LIGHT AND HEAVY DUTY MANUAL TRANSMISSION)**  
**(1986 THROUGH MARCH, 1987 CERTIFIED ENGINES)**

541-0141  
541-0142  
541-0143

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	FLYWHEEL ASSEMBLY (Includes Ring Gear and Alignment Pin)		
			Ford
	104-1671	1	Light Duty
	104-1670	1	Heavy Duty
	104-1672	1	General Motors (Includes Bushing)
2	104-1666	1	Gear, Ring
3	104-1036	1	Plate, Washer
4	SCREW, CAP - HEX HEAD		
			Ford
	720-1804	6	Light Duty (Flanged Hex Head) (M10 x 38 MM)
	720-1060	6	Heavy Duty (M10 x 55 MM)
	720-1059	6	General Motors (M10 x 50 MM)
5	740-1801	6	Washer, Flat (M12)
6	190-0681	1	Bushing - General Motors

**DUST SHIELD**  
**(GENERAL MOTORS MANUAL TRANSMISSION)**  
**(FORD LIGHT AND HEAVY DUTY MANUAL TRANSMISSION)**  
**(BEGIN APRIL, 1987 CERTIFIED ENGINE)**

541-0184  
541-0198  
541-0199



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	SHIELD, DUST		
			Ford
	190-0677	1	Light Duty (Illustrated)
	190-0676	1	Heavy Duty
	190-0674	1	General Motors
2	SCREW, LOCKING HEAD (FLANGE)		
			Ford (5/16-18 x 1/2")
	821-0014	6	Light Duty
	821-0014	5	Heavy Duty
	821-0018	4	General Motors (1/4-20 x 5/8")
3	SCREW, CAP - HEX HEAD		
	800-0071	3	*7/16-14 x 1"
	800-0082	3	*7/16-14 x 3-3/4"
	720-1057	6	#M10 x 40 MM
	718-1061	2	#M10 x 60 MM
4	WASHER, FLAT		
	526-0249	6	*7/16"
	740-1008	6	#M10
5	862-0004	3	*Nut, Hex (7/16-14)

\* - Clutch Housing Retaining - Ford Heavy Duty.  
# - Clutch Housing Retaining - General Motors.

## COOLANT RECOVERY SYSTEM (FORD)

541-0045  
541-0079

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-2757	1	Frame, Coolant Tank
2	815-0335	4	Screw, Sheet Metal - Hex Head (#10 x 1/2")
3	130-2758	1	Tank
4	130-2759	1	Cap, Tank
5	503-1455	1	Hose (3/8" ID x 96") Radiator to Tank
6	503-1416	1	Hose (3/8" ID x 8") Tank Pickup
7	503-1445-03	3	Clamp, Hose
8	503-1472	1	Hose (1/2" ID x 36") Tank Overflow

## LABELS (GENERAL MOTORS AND FORD)

541-0045  
541-0047  
541-0085

PART NO.	QTY. USED	PART DESCRIPTION
LABEL		
98-5118	1	"Diesel Fuel Only" (4-1/4" x 2")
98-5119	1	"Diesel Fuel Only" (5" x 7/8") "Diesel Engine Starting Instructions"
98-5121	1	1984 Certified Engine
98-5498	1	1985 Certified Engine
98-5390	1	"Rotating Fan, etc."
98-5391	1	"Water in Fuel, etc."
98-5392	1	"Ether Starting Aids, etc."
98-5394	1	"Starting Circuit, etc."
98-5402	1	"Fuel/Water Separator"
98-5408	1	"Normal Engine Temperature"
98-5499	1	"Cold Start Advance" - 1985 Certified Engine
98-5679	1	"Glow Plug Light"

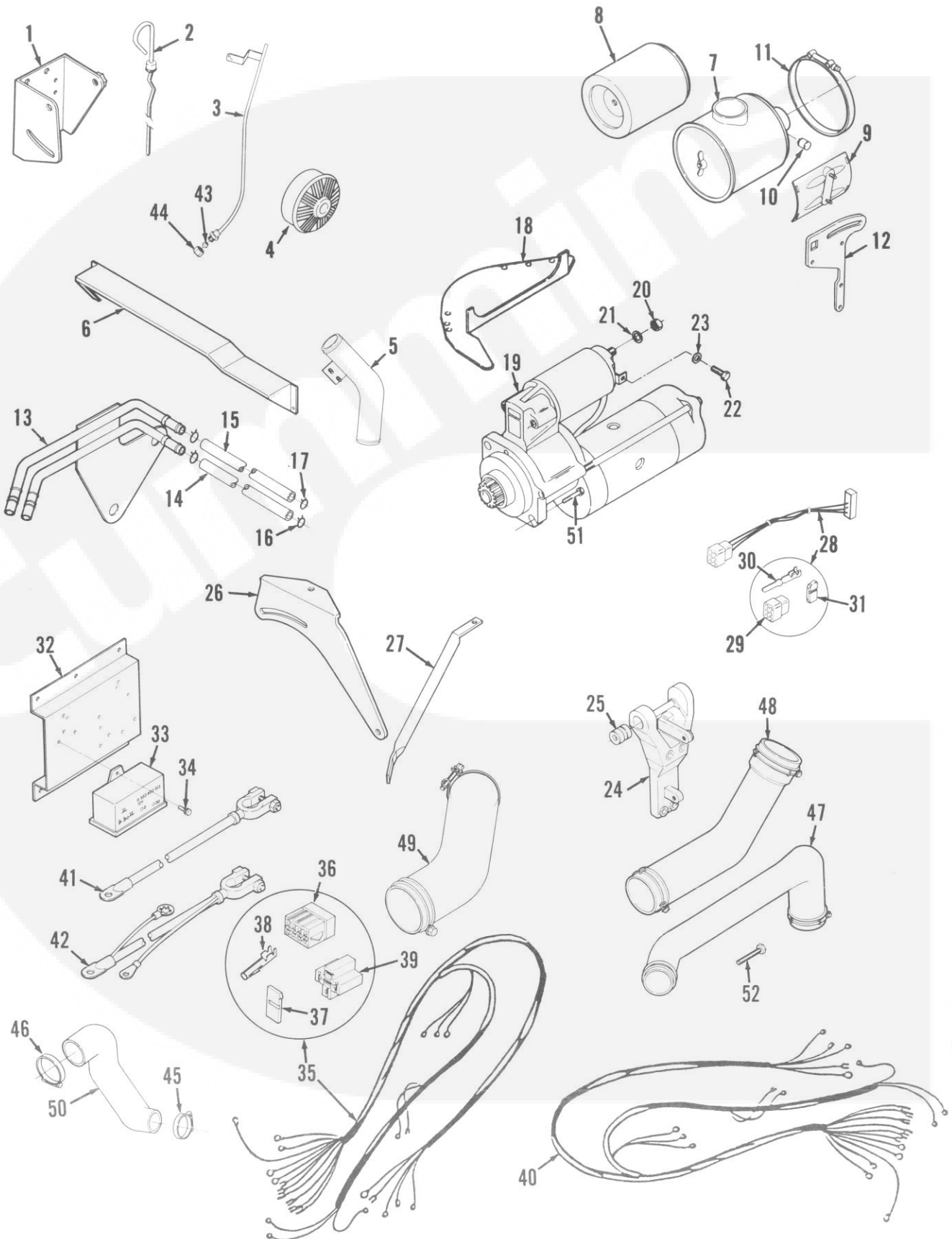
## STARTER AND STARTER COMPONENTS (GENERAL MOTORS AND FORD)

541-0032  
541-0033  
541-0034  
541-0035

NOTE: For replacement Starter or Starter Components refer to page  
40 (Starter) or 41 (Components).



# FIELD INSTALLATION KIT (FORD OF VENEZUELA)



# FIELD INSTALLATION KIT (FORD OF VENEZUELA)

541-0279

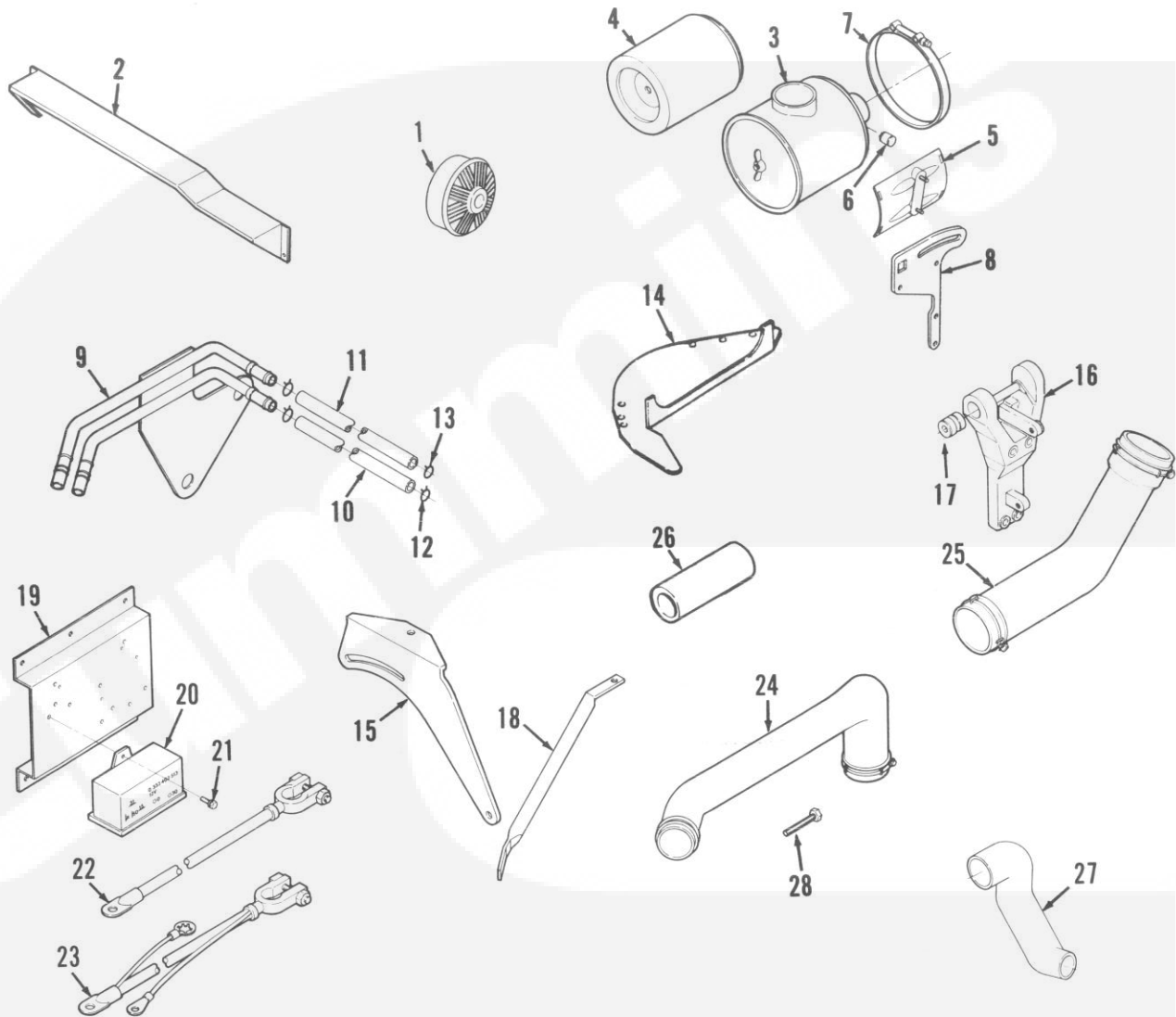
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	120-1199-01	1	Bracket, Power Steering Pump	27	191-1875-01	1	Brace, Alternator Strap
2	123-1711-12	1	Indicator, Oil Level	28	305-0793	1	Sensor Assembly - Water In Fuel (Includes Parts Marked*)
3	123-1817-01	1	Tube, Oil Level	29	323-1437	1	*Body, Connector (6 Place) (P1)
4	130-3178-02	1	Clutch, Fan	30	323-1436	5	*Pin, Connector
5	130-3201-01	1	Tube, Radiator Outlet	31	323-1438	1	*Wedge, Connector
6	130-3219	1	Guard, Fan - Finger	32	333-0395	1	Bracket, Controller Mounting
7	140-2220	1	Cleaner, Air (Includes Element)	33	333-0245	1	Controller, Glow Plug
8	140-2219	1	Element, Air Cleaner	34	815-0139	1	Screw, Hex Washer Head - Thread Cutting (1/4-20 x 3/4")
9	140-2269-01	1	Bracket, Air Cleaner Mounting	35	338-2288	1	Harness, Wiring - Engine (Includes Parts Marked #)
10	140-1931	1	Indicator, Restriction	36	323-1426	1	#Connector (8 Place) (P1)
11	503-1628	2	Clamp, Air Cleaner Mounting	37	323-1427	1	*Wedge, Connector
12	145-0597-01	1	Bracket, Vacuum Pump Mounting	38	SOCKET, CONNECTOR		
13	159-1188	1	Line Assembly, Fuel - Fuel Tank Supply/Return (Hard Lines - Chassis Mounted)		323-1428	1	#10-12 Gauge Wire
14	503-1610	1	Hose, Fuel - Supply (3/8" ID x 445 MM)		323-1429	1	#14 Gauge Wire
15	503-1609-01	1	Hose, Fuel - Return (5/16" ID x 445 MM)		323-1430	6	#18 Gauge Wire
16	503-1445-04	2	Clamp, Hose (5/8" OD Hose)	39	307-1690	1	#Plug, Relay Harness (5 Place) (P2)
17	503-1445-03	2	Clamp, Hose (9/16" OD Hose)	40	338-2289	1	Harness, Wiring - Starter to Starter Relay
18	190-0675-01	1	Cover, Transmission Access	41	416-0919	1	Cable, Battery - Positive
19	191-1888	1	Starter - Complete (Includes Switch Terminal Hardware) (For replacement starter components refer to page 41 using Sales Code 33AA)	42	416-0920	1	Cable, Battery - Negative
20	860-2008	1	Nut, Hex (M8) B+ Terminal	43	502-0966	1	Sleeve, Flareless Tube
21	850-2008	1	Washer, Lock - Spring (M8) B+ Terminal	44	502-0967	1	Nut, Flareless Tube
22	718-1002	†	Screw, Cap - Hex Head (M5 x 8 MM) Solenoid Terminal	45	503-1142	1	Clamp, Hose (#36)
23	850-2005	1	Washer, Lock - Spring (M5) Solenoid Terminal	46	503-1146	1	Clamp, Hose (#52)
24	191-1844	1	Bracket Assembly, Mounting - Alternator and Vacuum Pump (Includes Bushing)	47	503-1582	1	Hose, Radiator - Upper (Includes Clamps)
25	191-1843	1	Bushing, Mounting Bracket	48	503-1583	1	Hose, Radiator - Lower (Without "ENG" Mark) (Includes Clamps)
26	191-1862-01	1	Strap, Alternator Adjusting	49	503-1584	1	Hose, Radiator - Lower (With "ENG" Mark) (Includes Clamps)
				50	503-1605	1	Hose, Air Intake (Air Cleaner to Turbocharger Inlet)
				51	720-1806	1	Screw, Cap - Flanged Hex Head (M12 x 30 MM)
				52	800-2071	1	Screw, Cap - Hex Head (M8 x 90 MM) Intake Manifold and Alternator Brace Mounting
				53	-	1	Pipe, Exhaust (Not Illustrated - Replacement part to be sourced locally)
				54	140-2138-01	1	Duct, Air Inlet (8") (Not Illustrated)
				55	140-2285-01	1	Bracket, Support - Air Duct (Not Illustrated)

\* - Parts Included in 305-0793 Sensor Assembly.

# - Parts Included in 338-2288 Engine Wiring Harness.

# **FIELD INSTALLATION KIT (DEALER SPECIAL OPTION - FORD)**

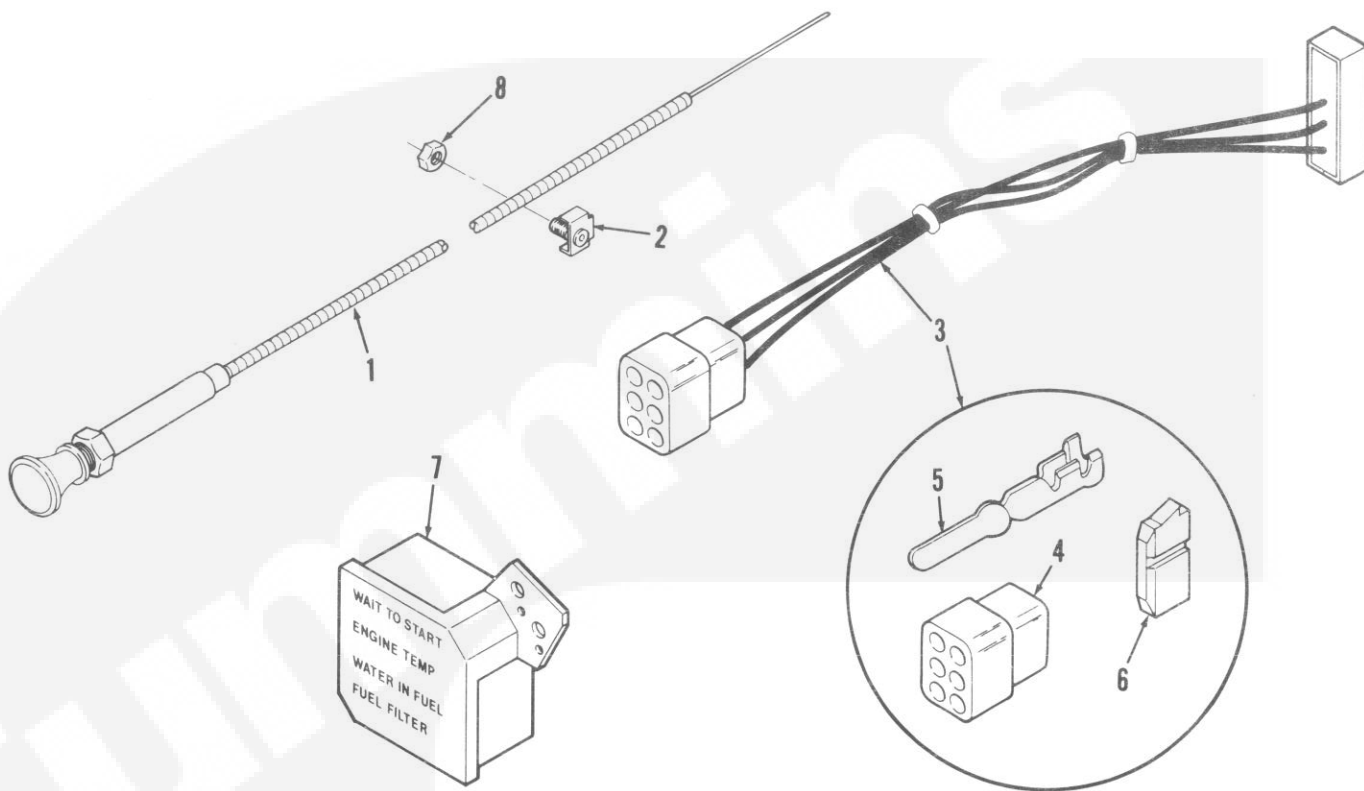
541-0251



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-3178-02	1	Clutch, Fan	16	191-1844	1	Bracket Assembly, Mounting - Alternator and Vacuum Pump (Includes Bushing)
2	130-3219	1	Guard, Fan - Finger	17	191-1843	1	Bushing, Mounting Bracket
3	140-2220	1	Cleaner, Air (Includes Element)	18	191-1849-01	1	Brace, Alternator Strap
4	140-2219	1	Element, Air Cleaner	19	333-0395	1	Bracket, Controller Mounting
5	140-2269-01	1	Bracket, Air Cleaner Mounting	20	333-0245	1	Controller, Glow Plug
6	140-1931	1	Indicator, Restriction	21	815-0139	1	Screw, Hex Washer Head - Thread Cutting (1/4-20 x 3/4")
7	503-1628	2	Clamp, Air Cleaner Mounting	22	416-0919	1	Cable, Battery - Positive
8	145-0597-01	1	Bracket, Vacuum Pump Mounting	23	416-0920	1	Cable, Battery - Negative
9	159-1188	1	Line Assembly, Fuel - Fuel Tank Supply/Return (Hard Lines - Chassis Mounted)	24	503-1582	1	Hose, Radiator - Upper (Includes Clamps)
10	503-1610	1	Hose, Fuel - Supply (3/8" ID x 445 MM)	25	503-1583	1	Hose, Radiator - Lower (Without "ENG" Mark) (Includes Clamps)
11	503-1609-01	1	Hose, Fuel - Return (5/16" ID x 445 MM)	26	503-1595	1	Hose, Rubber (4" ID x 5")
12	503-1445-04	2	Clamp, Hose (5/8" OD Hose)	27	503-1605	1	Hose, Air Intake
13	503-1445-03	2	Clamp, Hose (9/16" OD Hose)	28	800-2071	1	Screw, Cap - Hex Head (M8 x 90 MM) Intake Manifold and Alternator Brace Mounting
14	190-0675-01	1	Cover, Transmission Access	29	-	1	Pipe, Exhaust (Not Illustrated - Replacement part to be sourced locally)
15	191-1842-01	1	Strap, Alternator Adjusting				

# **DUNNAGE KIT (DEALER SPECIAL OPTION - FORD)**

541-0281-XX



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	LABELS (Not Illustrated)		
	98-5402	1	"Fuel/Water Separator"
	98-5499	1	"Cold Start Advance"
	98-5889-XX	1	Starting Instructions
1	153-0586	1	Cable, Cold Start
2	153-0593	1	Clamp, Cable Mounting
3	305-0793	1	Sensor Assembly - Water in Fuel (Includes Parts Marked*)
4	323-1437	1	*Body, Connector (6 Place) (P1)
5	323-1436	5	*Pin, Connector
6	323-1438	1	*Wedge, Connector
7	322-0399	1	Lens, Warning
8	870-0328	1	Nut, Self-Locking (#10-32)

\* - Parts Included in 305-0793 Sensor Assembly.

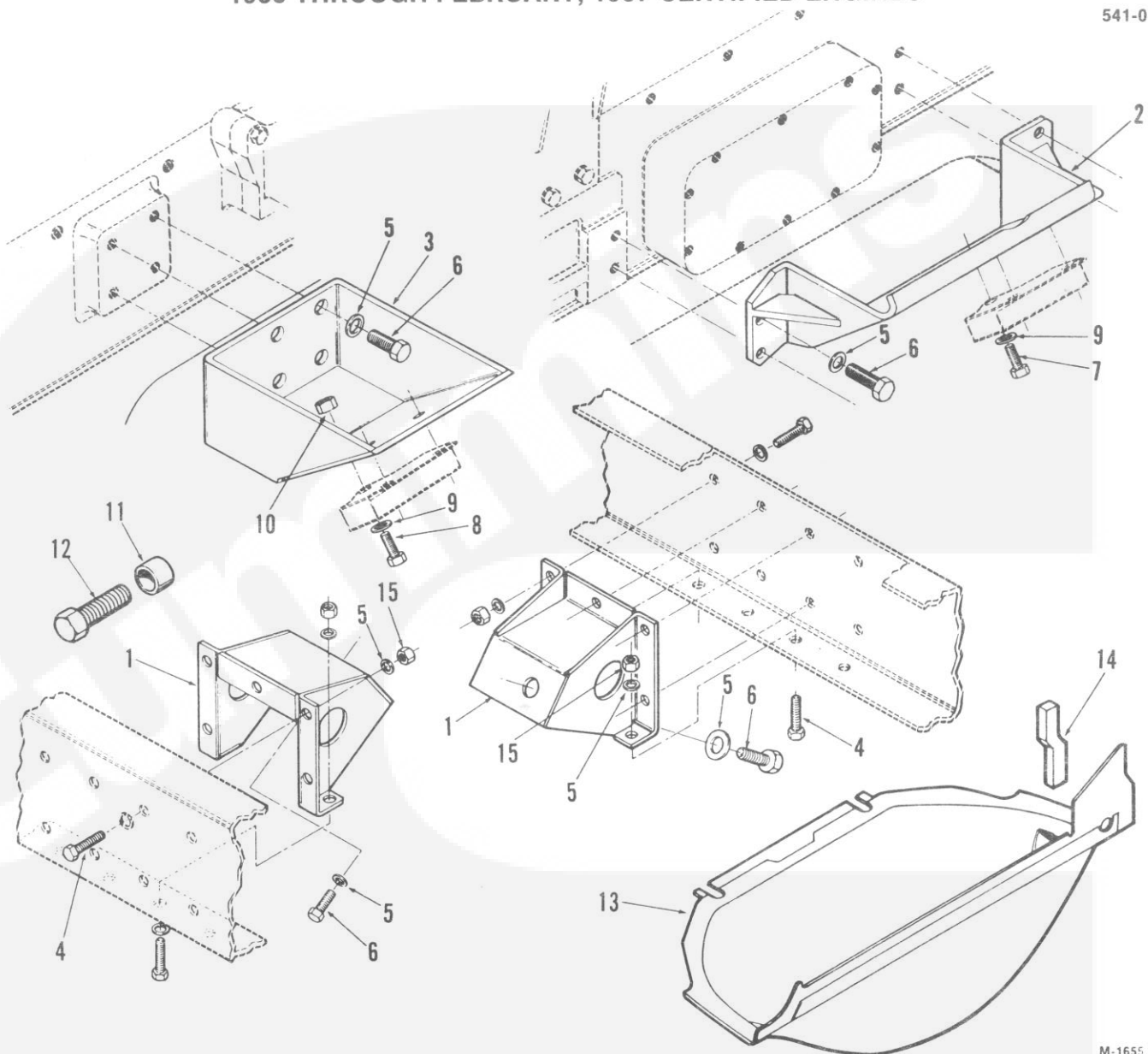
# FIELD INSTALLATION KITS

(United Parcel Service)



# **ENGINE MOUNTING** **UPS VEHICLE APPLICATION - GENERAL MOTORS P SERIES** **1985 THROUGH FEBRUARY, 1987 CERTIFIED ENGINES**

541-0114



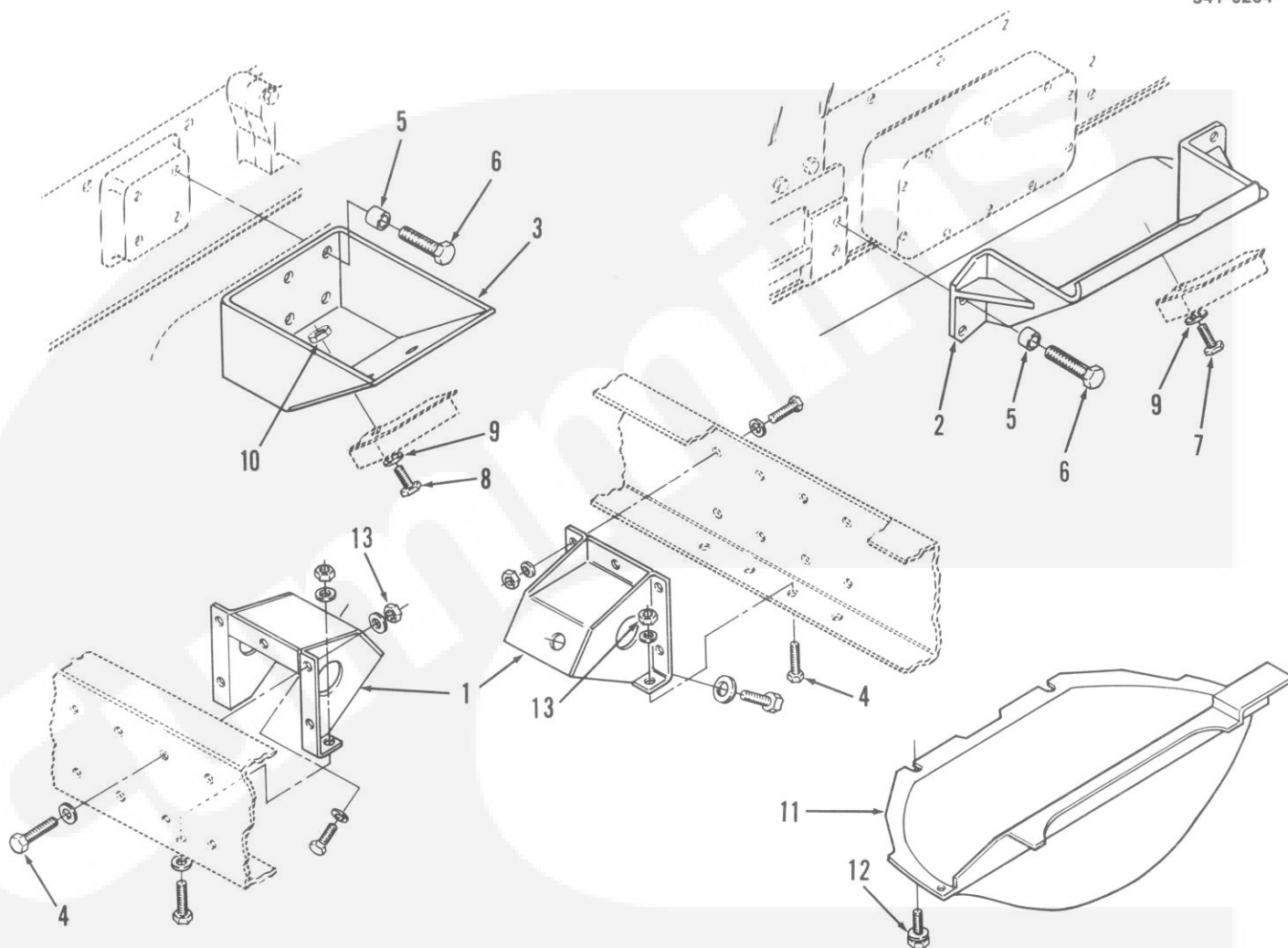
M-1655

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	403-2438-01	2	Bracket, Frame
2	403-2260-01	1	Mount, Engine - Left Hand
3	403-2437-01	1	Mount, Engine - Right Hand
4	800-0507	14	Screw, Cap - Hex Head (7/16-14 x 1-1/2")
5	740-1801	8	Washer, Flat (M12)
6	720-1073	8	Screw, Cap - Hex Head (M12 x 25 MM)
7	720-1053	5	Screw, Cap - Hex Head (M10 x 20 MM)
8	SCREW, CAP - HEX HEAD		
	720-1054	3	Without Ground Strap (M10 x 25 MM)
			With Ground Strap
	720-1054	2	M10 x 25 MM
	720-1056	1	M10 x 35 MM

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
9	740-1008	36	Washer, Flat (M10)
10	750-1008	3	Nut, Hex (M10)
11	191-1583	2	Spacer (Slave Cylinder Mounting)
12	800-0538	2	Screw, Cap - Hex Head (3/8-16 x 1-1/2") (Slave Cylinder Mounting)
13	104-1664-01	1	Cover Assembly, Flywheel (Includes Seal)
14	508-0267	1	Seal, Adhesive (90 MM)
15	870-0330	14	Nut, Self-Locking (7/16-14)

**ENGINE MOUNTING**  
**UPS VEHICLE APPLICATION - GENERAL MOTORS P SERIES**  
**BEGIN MARCH, 1987 CERTIFIED ENGINE**

541-0254

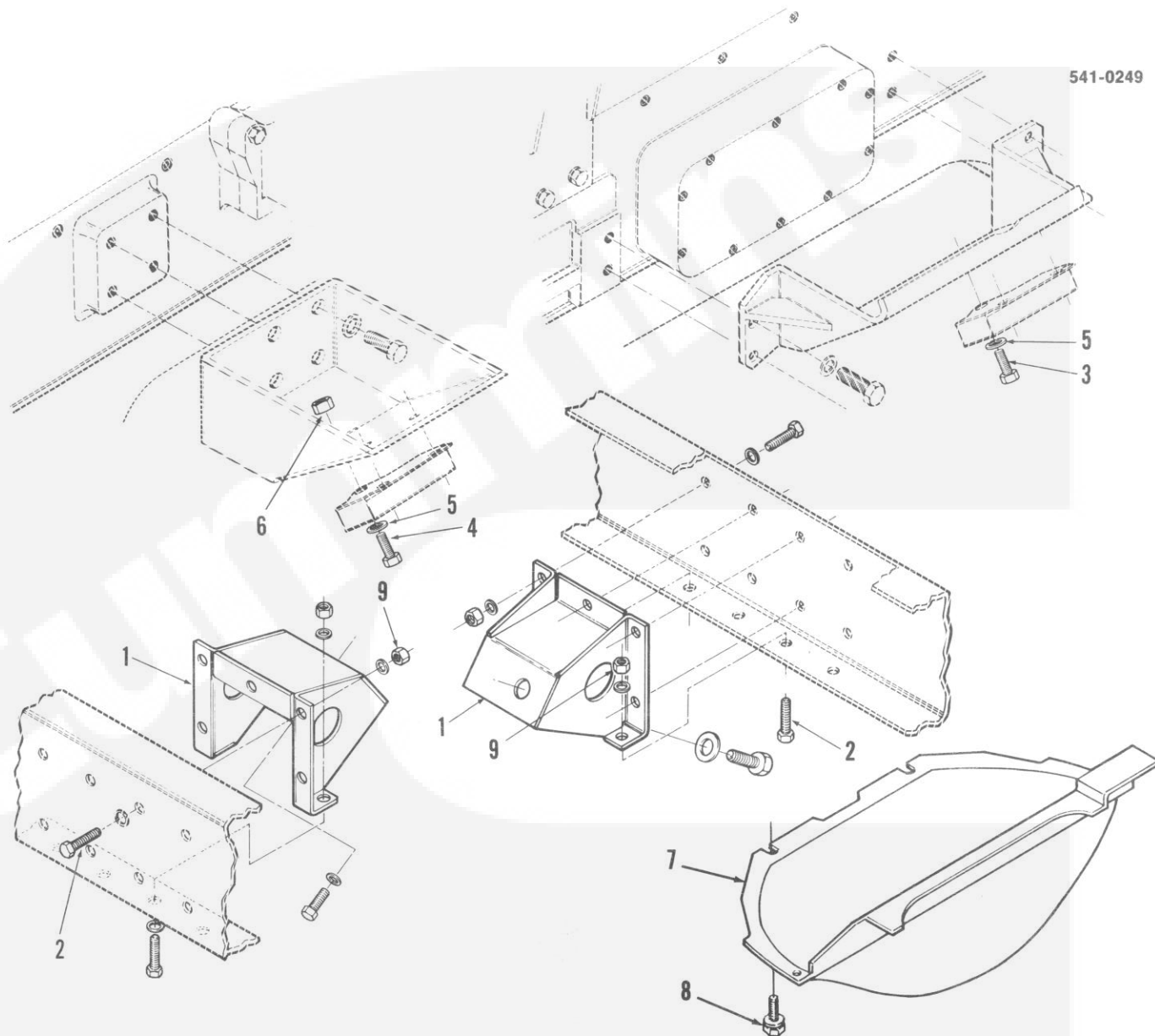


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	403-2438-01	2	Bracket, Frame
2	403-2260-01	1	Mount, Engine - Left Hand
3	403-2437-01	1	Mount, Engine - Right Hand
4	800-0507	14	Screw, Cap - Hex Head (7/16-14 x 1-1/2")
5	370-4033	8	Spacer
6	720-1075	8	Screw, Cap - Hex Head (M12 x 35 MM)
7	720-1053	5	Screw, Cap - Hex Head (M10 x 20 MM)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
8	SCREW, CAP - HEX HEAD		
	720-1054	3	M10 x 25 MM
	720-1056	1	M10 x 35 MM
9	740-1008	36	Washer, Flat (M10)
10	750-1008	3	Nut, Hex (M10)
11	190-0674	1	Cover, Transmission
12	821-0010	4	Screw, Locking, Head (Flange) (1/4-20 x 1/2")
13	870-0330	14	Nut, Self-Locking (7/16-14)

**ENGINE MOUNTING**  
**UPS VEHICLE APPLICATION - GENERAL MOTORS P SERIES**  
**P1000 PACKAGE CAR**  
**1987 CERTIFIED ENGINE**

541-0249

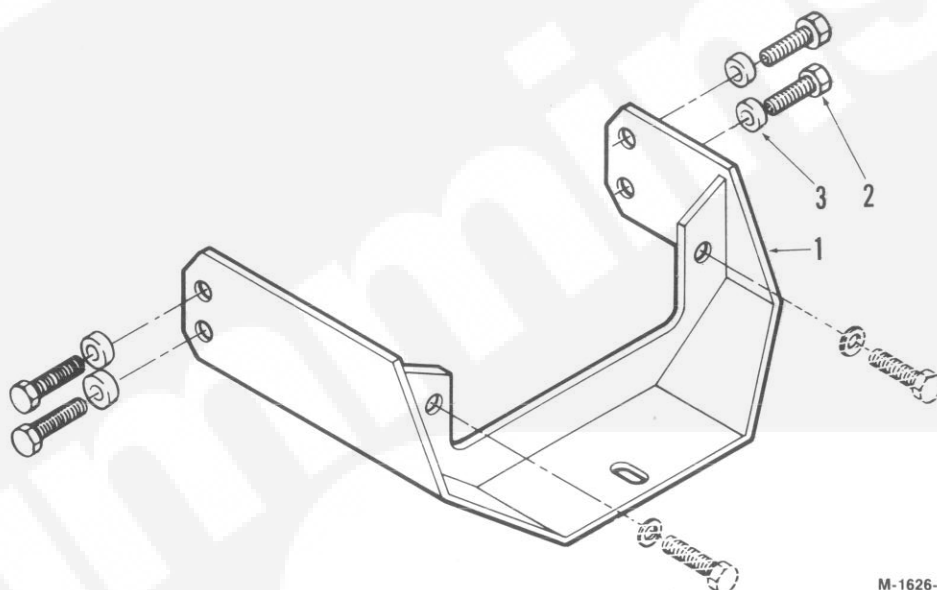


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	403-2438-01	2	Bracket, Frame
2	800-0507	14	Screw, Cap - Hex Head (7/16-14 x 1-1/2")
3	720-1053	5	Screw, Cap - Hex Head (M10 x 20 MM)
4	SCREW, CAP - HEX HEAD		
	720-1054	3	M10 x 25 MM
	720-1056	1	M10 x 35 MM
5	740-1008	36	Washer, Flat (M10)
6	750-1008	3	Nut, Hex (M10)
7	190-0674	1	Cover, Transmission
8	821-0010	4	Screw, Locking Head (Flange) (1/4-20 x 1/2")
9	870-0330	14	Nut, Self-Locking (7/16-14)



**ENGINE MOUNTING**  
**UPS VEHICLE APPLICATION - FORD P SERIES**  
**1984 THROUGH 1987 CERTIFIED ENGINES**

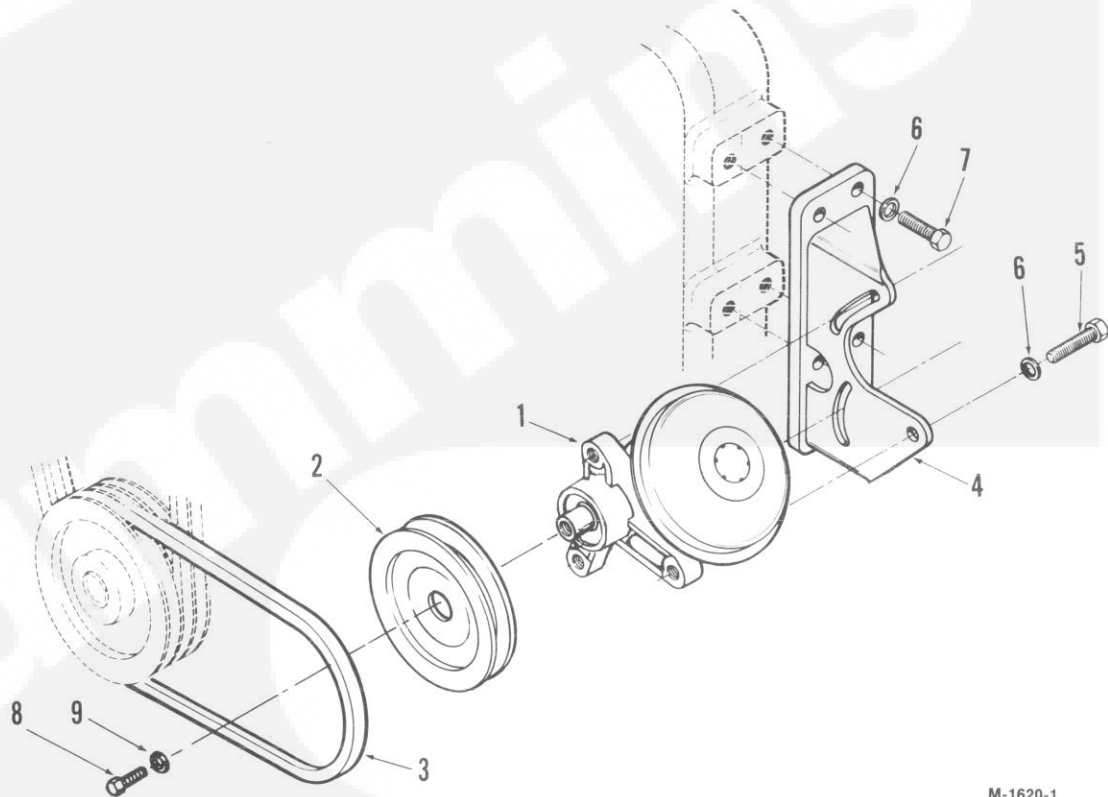
541-0076



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	403-2255-01	1	Mount, Engine - Front
2	718-1075	4	Screw, Cap - Hex Head (M12 x 35 MM)
3	370-4033	4	Spacer

**BRAKE VACUUM PUMP  
UPS VEHICLE APPLICATION  
FORD P SERIES WITHOUT POWER STEERING  
GENERAL MOTORS P SERIES WITH VACUUM BRAKES  
1984 THROUGH 1987 CERTIFIED ENGINES**

541-0075

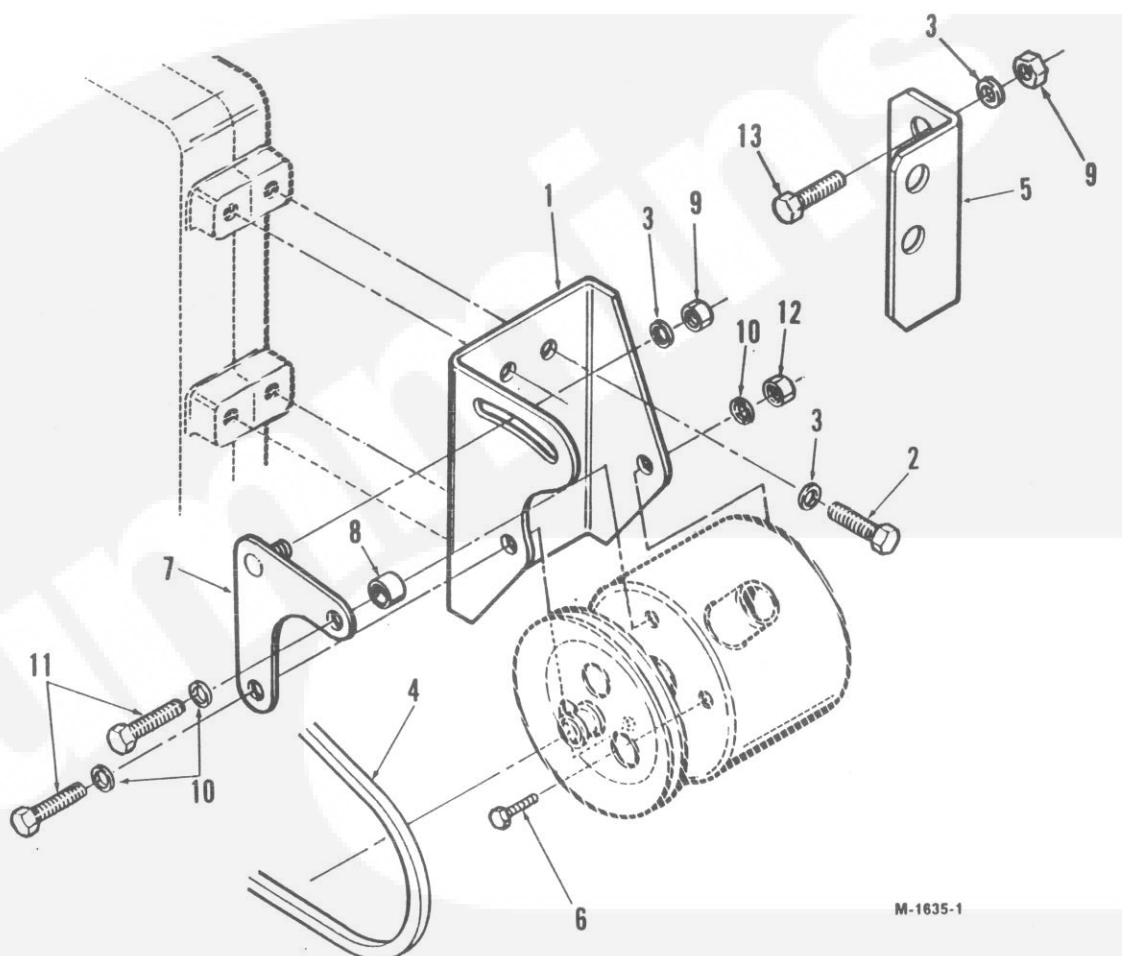


M-1620-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	145-0553	1	Pump, Vacuum
2	512-0163	1	Pulley
3	511-0147-23	1	Belt
4	145-0555-01	1	Bracket, Mounting
5	718-1038	3	Screw, Cap - Hex Head (M8 x 30 MM)
6	740-1006	7	Washer, Flat (M8)
7	718-1037	4	Screw, Cap - Hex Head (M8 x 25 MM)
8	800-0517	1	Screw, Cap - Hex Head (3/8-16 x 1")
9	526-0250	1	Washer, Flat (3/8")

**"HYDRABOOST" PUMP MOUNTING HARDWARE  
UPS VEHICLE APPLICATION  
GENERAL MOTORS P SERIES WITH "HYDRABOOST" BRAKES  
1985 THROUGH 1987 CERTIFIED ENGINES**

541-0115



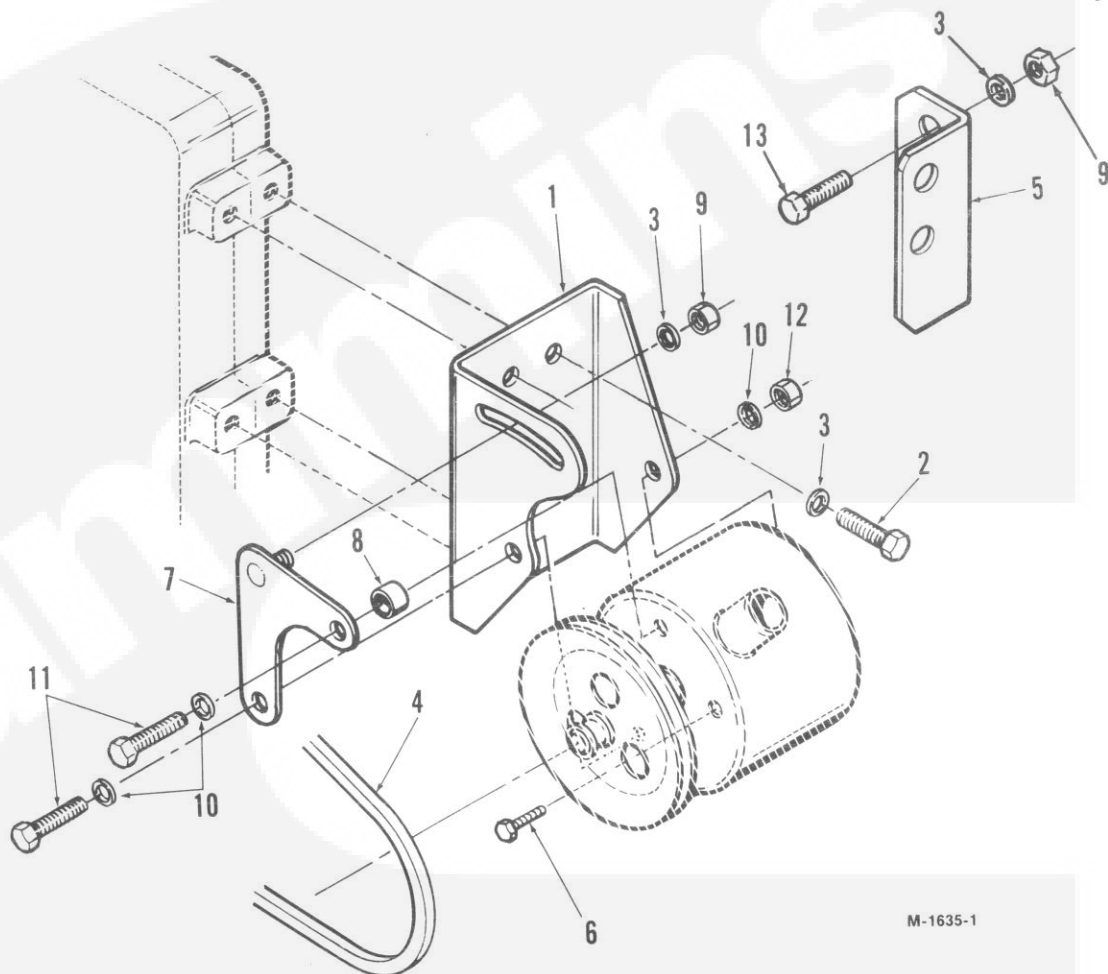
M-1635-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	121-0056-01	1	Bracket, Pump Mounting
2	718-1037	4	Screw, Cap - Hex Head (M8 x 25 MM)
3	740-1006	7	*Washer, Flat (M8)
4	511-0147-23	1	Belt
5	120-1180-01	1	Bracket, Reservoir Mounting
6	802-0068	1	Screw, Cap - Socket Head (3/8-16 x 1/2")
7	121-0059-01	1	Brace, Pump
8	121-0057	1	Spacer
9	750-1006	3	*Nut, Hex (M8)
10	526-0026	3	Washer, Flat (3/8")
11	800-0050	2	Screw, Cap - Hex Head (3/8-16 x 1")
12	862-0003	1	Nut, Hex (3/8")
13	718-1036	2	*Screw, Cap - Hex Head (M8 x 20 MM)

\* - Two of these fasteners are used to mount reservoir bracket when air cleaner is mounted using a hose clamp in firewall mounted applications.

**“HYDRABOOST” PUMP MOUNTING HARDWARE  
UPS VEHICLE APPLICATION - GENERAL MOTORS P SERIES  
P1000 PACKAGE CAR  
1986, 1987 CERTIFIED ENGINES**

541-0115  
541-0248



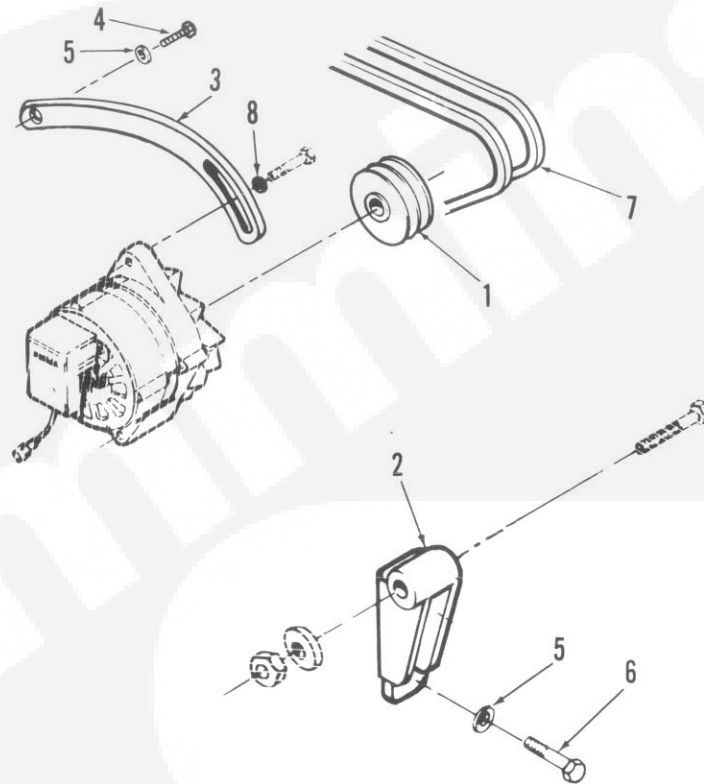
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	121-0056-01	1	Bracket, Pump Mounting - 1986 Certified Engine
2	718-1037	4	Screw, Cap - Hex Head (M8 x 25 MM) 1986 Certified Engine
3	WASHER, FLAT (M8)		
	740-1006	7	*1986 Certified Engine
	740-1006	2	*1987 Certified Engine
4	511-0147-23	1	Belt
5	120-1180-01	1	Bracket, Reservoir Mounting

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
6	802-0068	1	Screw, Cap - Socket Head (3/8-16 x 1 1/2")
7	121-0059-01	1	Brace, Pump
8	121-0057	1	Spacer
9	750-1006	3	*Nut, Hex (M8)
10	526-0026	3	Washer, Flat (3/8")
11	800-0050	2	Screw, Cap - Hex Head (3/8-16 x 1")
12	862-0003	1	Nut, Hex (3/8")
13	718-1036	2	*Screw, Cap - Hex Head (M8 x 20 MM)

\* - Two of these fasteners are used to mount reservoir bracket when air cleaner is mounted using a hose clamp in firewall mounted applications.

**ALTERNATOR MOUNTING HARDWARE  
UPS VEHICLE APPLICATION - GENERAL MOTORS P SERIES  
1985 THROUGH 1987 CERTIFIED ENGINES**

541-0122  
541-0161

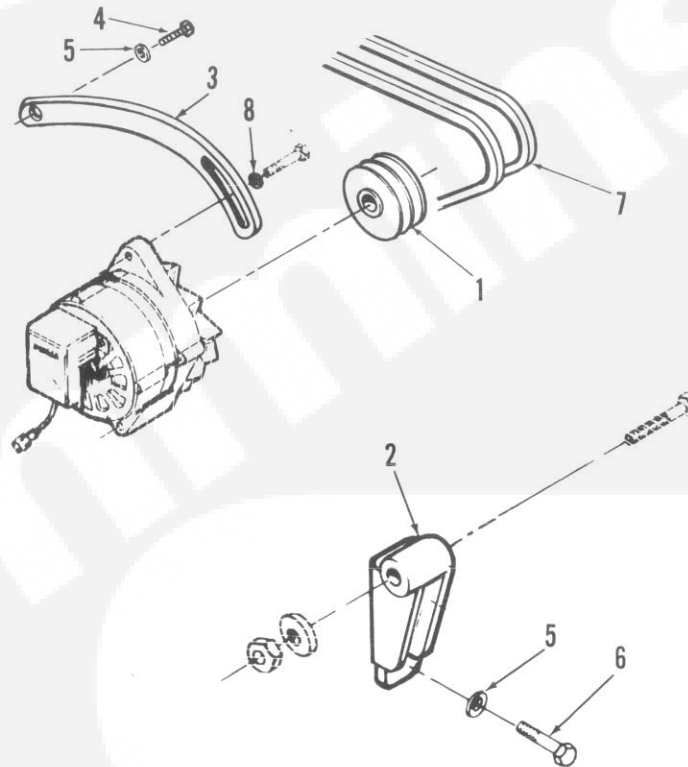


ES-1170-4

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	191-1336	1	Pulley, Alternator
2	BRACKET, ALTERNATOR MOUNTING		
	191-1750-01	1	1985, 1986 Certified Engine
	191-1806-01	1	1987 Certified Engine
3	191-1768-01	1	Strap, Alternator Adjusting
4	718-1036	1	Screw, Cap - Hex Head (M8 x 20 MM)
5	740-1006	5	Washer, Flat (M8)
6	718-1037	4	Screw, Cap - Hex Head (M8 x 25 MM)
7	511-0147-18	2	Belt
8	526-0250	1	Washer, Flat (3/8")

**ALTERNATOR MOUNTING HARDWARE**  
**UPS VEHICLE APPLICATION - GENERAL MOTORS P SERIES**  
**P1000 PACKAGE CAR**  
**1986, 1987 CERTIFIED ENGINES**

541-0161  
541-0247



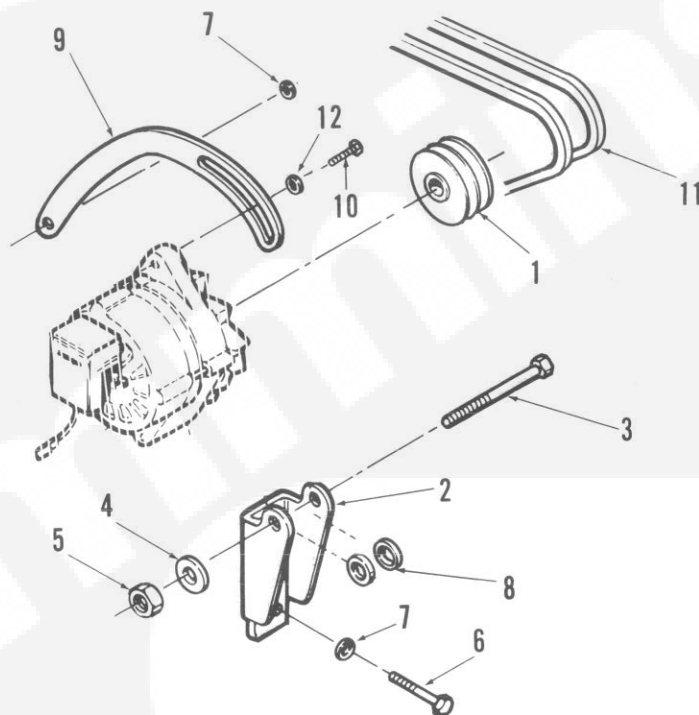
ES-1170-4

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	191-1336	1	Pulley, Alternator
2	191-1806-01	1	Bracket, Alternator Mounting - 1986 Certified Engine
3	191-1768-01	1	Strap, Alternator Adjusting
4	718-1036	1	Screw, Cap - Hex Head (M8 x 20 MM)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
5	WASHER, FLAT (M8)		
	740-1006	5	1986 Certified Engine
	740-1006	1	1987 Certified Engine
6	718-1037	4	Screw, Cap - Hex Head (M8 x 25 MM)
			1986 Certified Engine
7	511-0147-18	2	Belt
8	526-0250	1	Washer, Flat (3/8")

# **ALTERNATOR MOUNTING HARDWARE** **UPS VEHICLE APPLICATION - FORD P SERIES** **1984 THROUGH 1987 CERTIFIED ENGINES**

541-0130  
541-0131

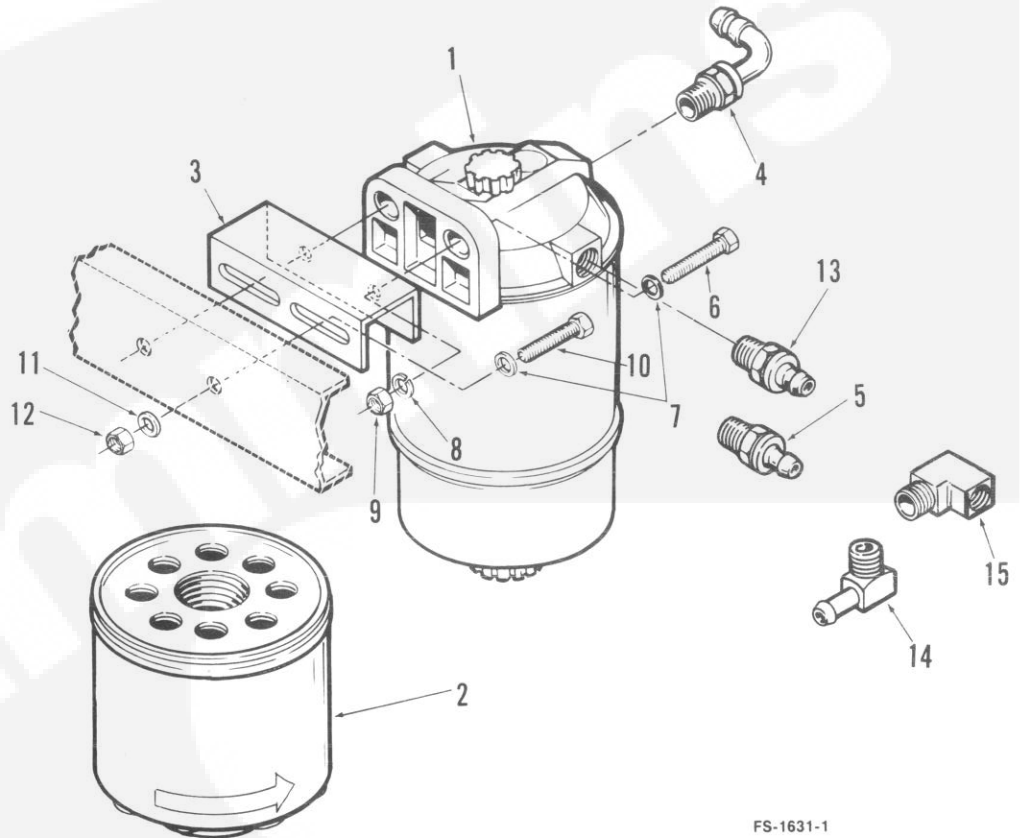


ES-1170-5

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	191-1336	1	Pulley, Alternator
2	BRACKET, ALTERNATOR MOUNTING		
	191-1624	1	1984 Certified Engine
	191-1773-01	1	1985 through 1987 Certified Engine
3	800-0084	1	Screw, Cap - Hex Head (7/16-14 x 4-1/2")
4	850-0054	1	Washer, Lock-Spring (7/16")
5	862-0004	1	Nut, Hex (7/16")
6	718-1037	4	Screw, Cap - Hex Head (M8 x 25 MM)
7	WASHER, FLAT (M8)		
	740-1006	4	1984 Certified Engine
	740-1006	5	1985 through 1987 Certified Engine
8	191-1669	2	Spacer, Alternator Bracket - 1984 Certified Engine
9	STRAP, ALTERNATOR ADJUSTING		
	191-1737-01	1	1984 Certified Engine
	191-1768-01	1	1985 through 1987 Certified Engine
10	SCREW, CAP - HEX HEAD (Strap Mounting)		
	718-1043	1	M8 x 55 MM - 1984 Certified Engine
	718-1036	1	M8 x 20 MM - 1985 through 1987 Certified Engine
11	511-0147-18	2	Belt
12	526-0250	1	Washer, Flat (3/8")

## WATER SEPARATOR UPS VEHICLE APPLICATION

541-0077



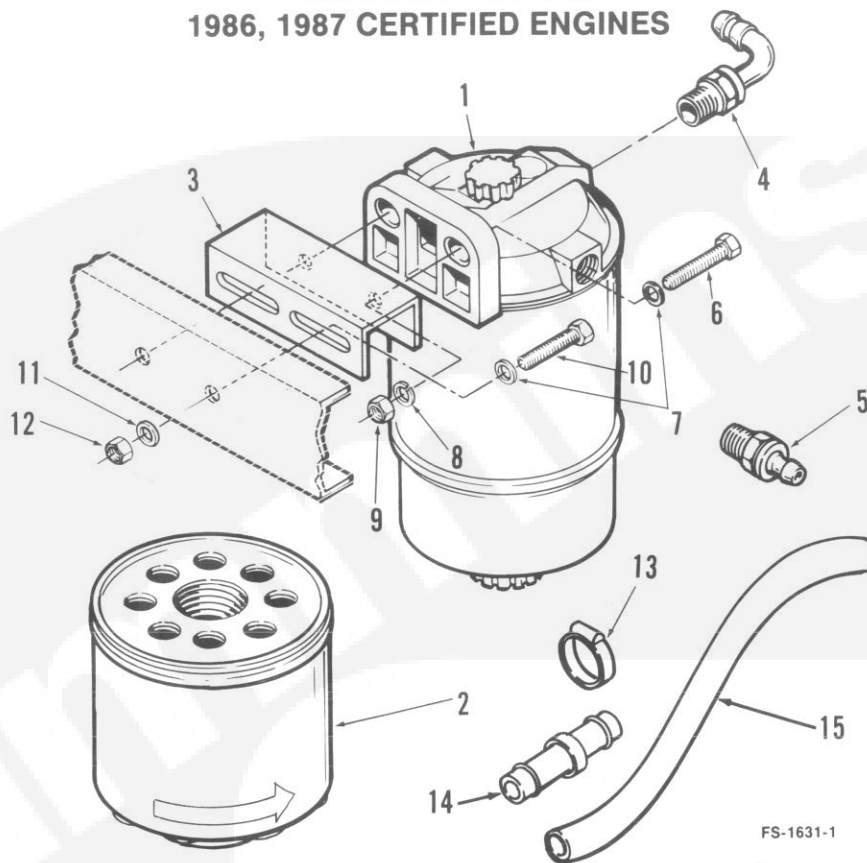
FS-1631-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	149-1908-05	1	Separator, Water (Includes Filter Element) (See Separate Group for Components)
2	149-1914-01	1	Element
3	149-2041-01	1	Bracket, Separator Mounting
4	502-0919	2	Elbow, Barbed Hose (90°)
5	502-0584	2	Fitting, Male Pipe (3/8" ID Hose to 1/4-18 Pipe)
6	718-1039	2	Screw, Cap - Hex Head (M8 x 35 MM)
7	740-1006	2	Washer, Flat (M8)
8	850-2008	2	Washer, Lock - Spring (M8)
9	750-1006	2	Nut, Hex (M8)
10	718-1055	2	Screw, Cap - Hex Head (M10 x 30 MM)
11	740-1008	4	Washer, Flat (M10)
12	750-1008	2	Nut, Hex (M10)
13	502-0918	1	Fitting, Barbed Hose
14	502-0990	1	Elbow, Male Barbed Hose (90°)
15	502-0825	1	Elbow, Inverted Flare (90°)



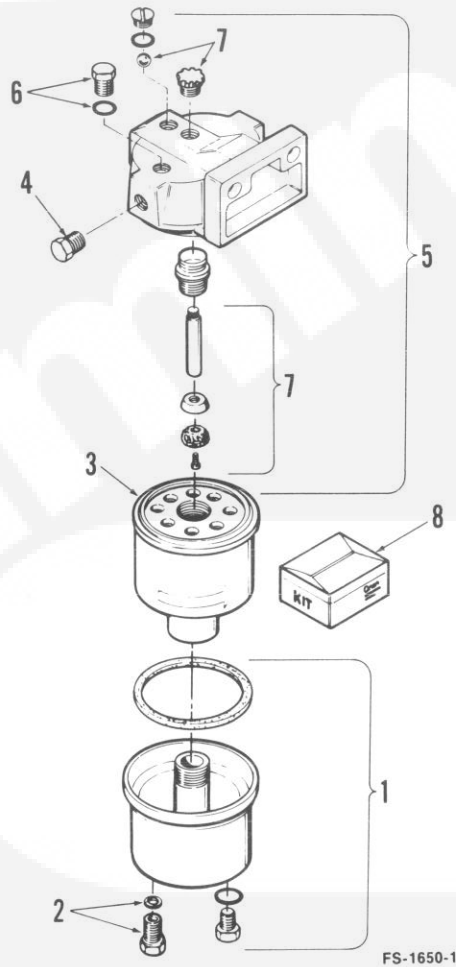
**WATER SEPARATOR**  
**UPS VEHICLE APPLICATION - GENERAL MOTORS P SERIES**  
**P1000 PACKAGE CAR**  
**1986, 1987 CERTIFIED ENGINES**

541-0177



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	149-1908-05	1	Separator, Water (Includes Filter Element) (See Separate Group for Components)
2	149-1914-01	1	Element
3	149-2041-01	1	Bracket, Separator Mounting
4	502-0919	2	Elbow, Barbed Hose (90°)
5	502-0584	1	Fitting, Male Pipe (3/8" ID Hose to 1/4-18 Pipe)
6	718-1039	2	Screw, Cap - Hex Head (M8 x 35 MM)
7	740-1006	2	Washer, Flat (M8)
8	850-2008	2	Washer, Lock - Spring (M8)
9	750-1006	2	Nut, Hex (M8)
10	718-1055	2	Screw, Cap - Hex Head (M10 x 30 MM)
11	740-1008	4	Washer, Flat (M10)
12	750-1008	2	Nut, Hex (M10)
13	CLAMP, HOSE		
	503-0731	1	1/2"
	503-1133	6	SAE 6
14	502-1023	1	Union, Hose
15	HOSE, FUEL		
	503-1454	1	18'
	503-1532	2	10'

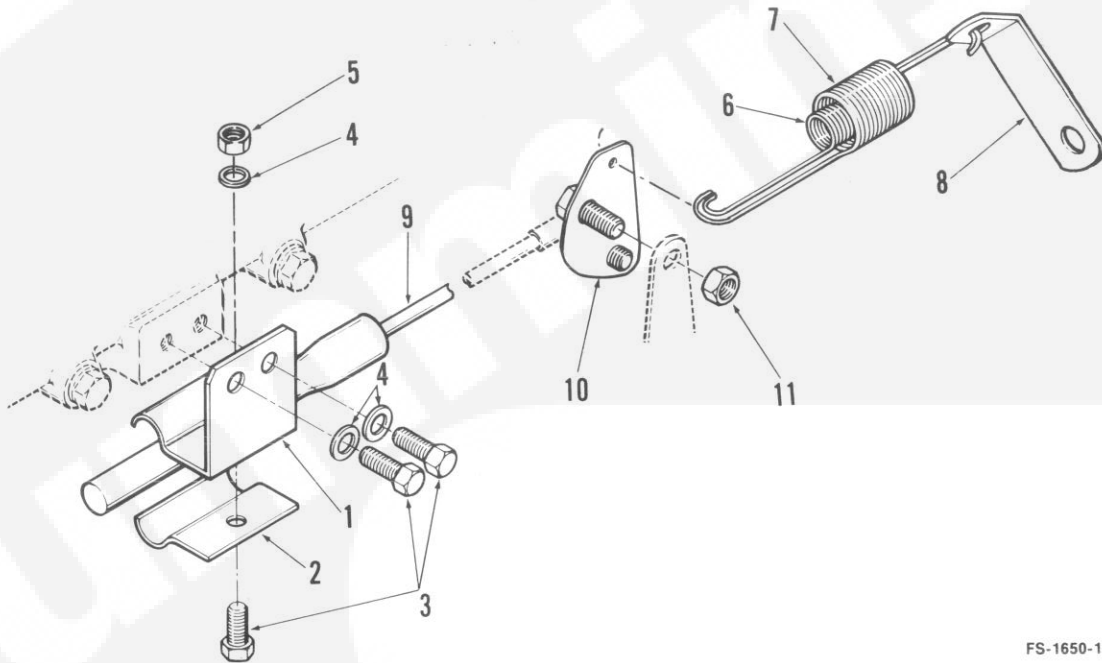
## WATER SEPARATOR COMPONENTS UPS VEHICLE APPLICATION



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	149-1908-05	1	Separator, Water (Complete)
	149-2046	1	Bowl Kit, Metal - Replacement (Includes Plug, O-Rings and Drain Assembly)
2	149-1953	1	Drain Assembly (Includes Knob and Seal)
3	149-1914-01	1	Element (Includes Seals)
4	502-0153	1	Plug, Hex (1/4")
5	149-1949	1	Head Assembly - Replacement (Includes Vent Plug, O-Rings, Seal, Cap, Tube and Pump Assembly)
6	149-1952	1	Plug, Vent (Includes O-Ring)
7	149-2047	1	Pump Assembly (Includes Plunger, Retainer, Shaft, Check Ball, Knob and Screw)
8	149-2045	1	O-Ring Kit (Includes Seal and Plunger)

**THROTTLE CONTROL  
UPS VEHICLE APPLICATION - FORD P SERIES  
1984 CERTIFIED ENGINE**

541-0107

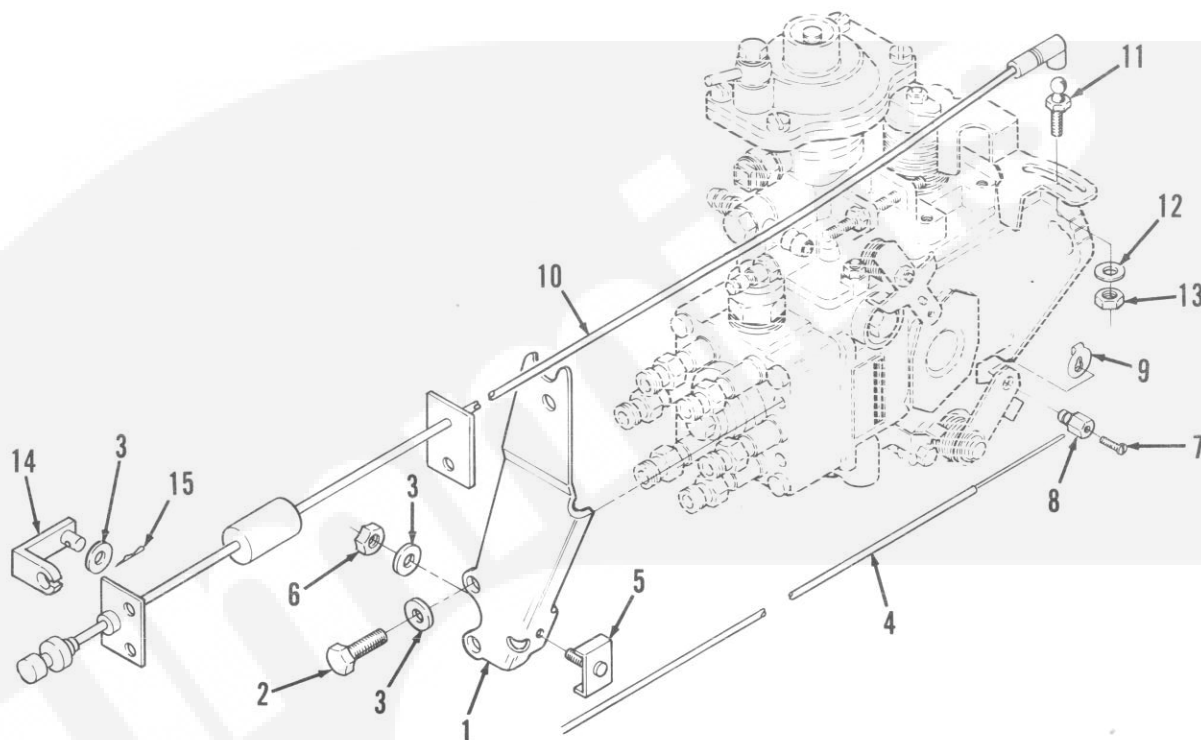


FS-1650-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	150-2055	1	Bracket, Throttle Cable
2	150-2089	1	Clip, Throttle Cable
3	718-1018	3	Screw, Cap - Hex Head (M6 x 12 MM)
4	740-1004	3	Washer, Flat (M6)
5	750-1004	1	Nut, Hex (M6)
6	150-2056	1	Spring, Accelerator Return (Inner)
7	150-2066	1	Spring, Accelerator Return (Outer)
8	150-2057	1	Bracket, Spring
9	150-2065	1	Cable, Accelerator
10	150-2058	1	Stud, Ball
11	870-0217	1	Nut, Lock (1/4-28)

**THROTTLE CONTROL  
UPS VEHICLE APPLICATION - FORD P SERIES  
1985 THROUGH 1987 CERTIFIED ENGINES**

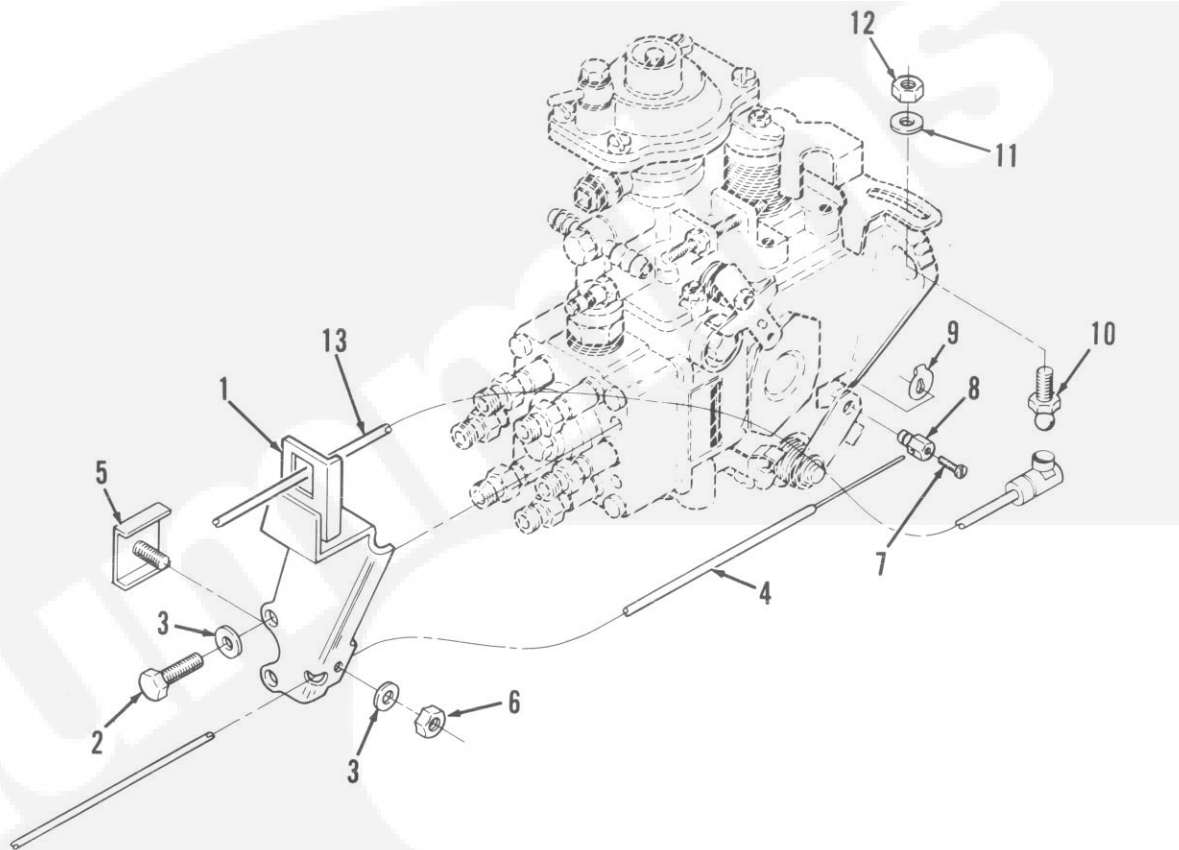
541-0167



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	152-0285	1	Bracket, Throttle Cable
2	718-1021	2	Screw, Cap - Hex Head (M6 x 20 MM)
3	740-1004	4	Washer, Flat (M6)
4	153-0586	1	Cable, Cold Start
5	541-0221	1	Kit, Throttle Clamp (Includes Lock Nut With Nylon Insert)
6	870-2052	1	Nut, Lock - With Nylon Insert (M6)
7	815-0104	1	Screw, Machine - Fillister Head (#8-32 x 5/16")
8	152-0266	1	Swivel
9	152-0270	1	Clip, Spring
10	152-0294	1	Cable, Throttle
11	150-2136	1	Joint, Ball
12	526-0009	2	Washer, Flat (#10)
13	870-0328	1	Nut, Lock (#10-32)
14	152-0293	1	Adapter, Throttle
15	516-0039	1	Pin, Cotter (3/32" x 5/8")

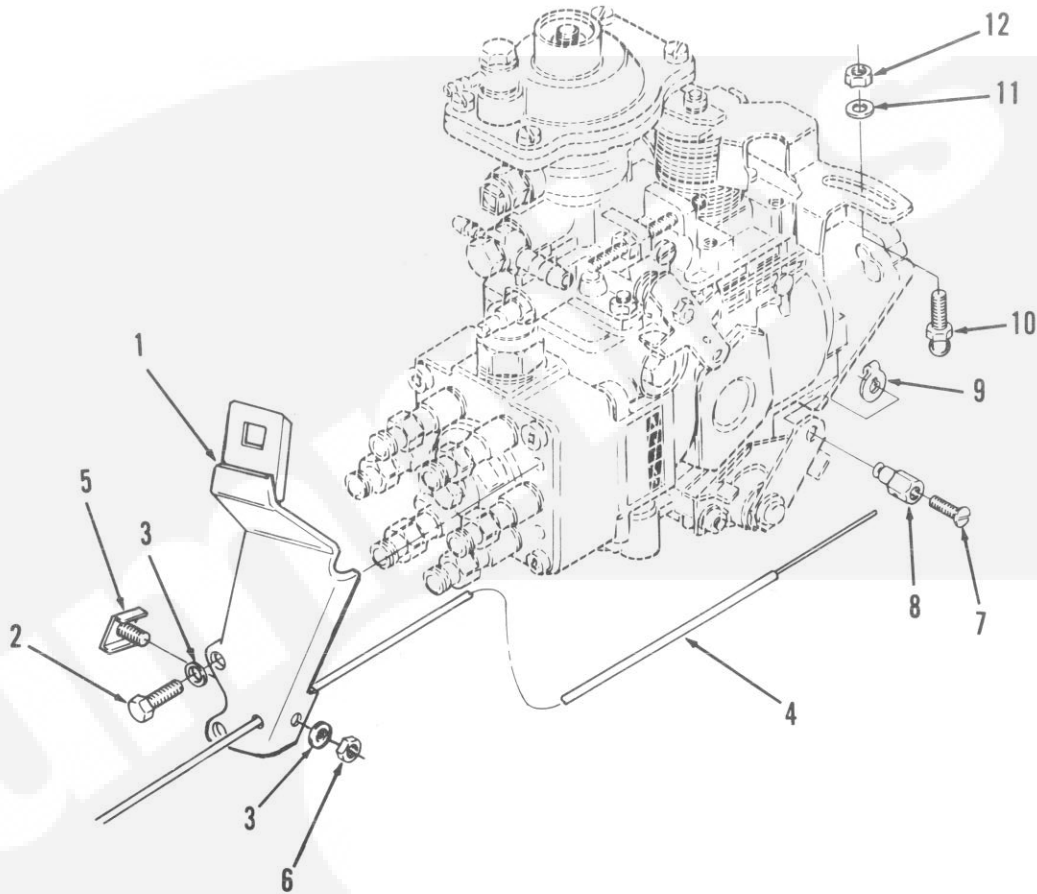
**THROTTLE CONTROL  
UPS VEHICLE APPLICATION  
GENERAL MOTORS P SERIES  
1985 THROUGH 1987 CERTIFIED ENGINES**

541-0124



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	152-0288	1	Bracket, Throttle Cable
2	718-1021	2	Screw, Cap - Hex Head (M6 x 20 MM)
3	740-1004	3	Washer, Flat (M6)
4	153-0586	1	Cable, Cold Start
5	541-0221	1	Kit, Throttle Clamp (Includes Lock Nut With Nylon Insert)
6	870-2052	1	Nut, Lock - With Nylon Insert (M6)
7	815-0104	1	Screw, Machine - Fillister Head (#8-32 x 5/16")
8	152-0266	1	Swivel
9	152-0270	1	Clip, Spring
10	150-2136	1	Joint, Ball
11	526-0009	2	Washer, Flat (#10)
12	870-0328	1	Nut, Self-Locking (#10-32)
13	152-0276	1	Cable, Throttle

**THROTTLE CONTROL**  
**UPS VEHICLE APPLICATION - GENERAL MOTORS P SERIES**  
**P1000 PACKAGE CAR**  
**1986, 1987 CERTIFIED ENGINES**

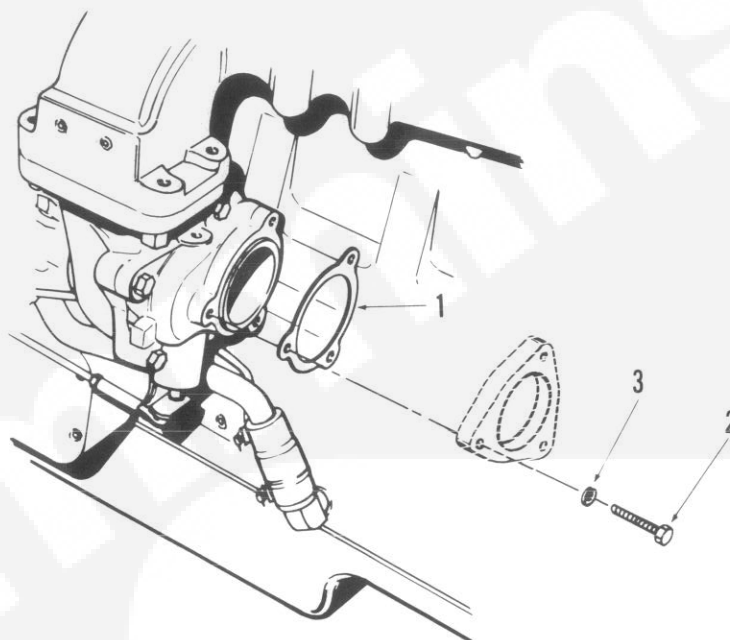


541-0162  
541-0246

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	152-0288	1	Bracket, Throttle Cable - 1986 Cert. Eng.	6	870-2052	1	Nut-Nylon Insert Lock (M6) 1986 Cert. Eng.
2	718-1021	2	Screw, Cap - Hex Head (M6 x 20 MM) 1986 Cert. Eng.	7	815-0104	1	Screw, Machine - Fillister Head (#8-32 x 5/16")
3	WASHER, FLAT (M6)			8	152-0266	1	Swivel
	740-1004	3	1986 Cert. Eng.	9	152-0270	1	Clip, Spring
	740-1004	1	1987 Cert. Eng.	10	150-2136	1	Joint, Ball - 1986 Cert. Eng.
4	153-0586	1	Cable, Cold Start	11	526-0009	2	Washer, Flat (#10) 1986 Cert. Eng.
5	541-0221	1	Kit, Throttle Clamp (Includes Lock Nut With Nylon Insert) 1986 Cert. Eng.	12	870-0328	1	Nut, Self-Locking (#10-32) 1986 Cert. Eng.

# EXHAUST SYSTEM UPS VEHICLE APPLICATION

541-0127

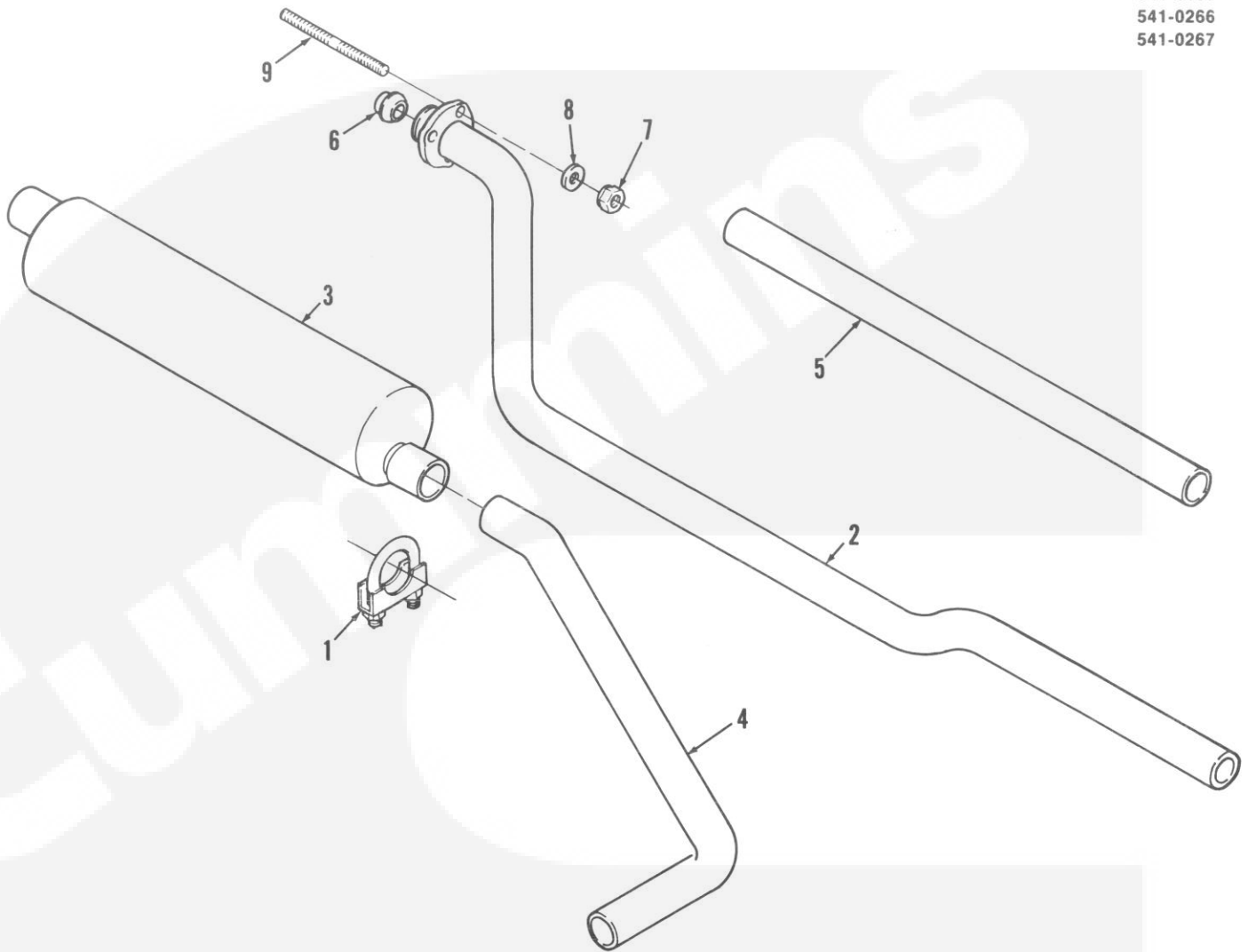


EXS-1141-3

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	154-2530	1	Gasket, Exhaust
2	SCREW, CAP - HEX HEAD 720-1037	3	M8 x 25 MM (Used with 3/8" Flange)
	720-1036	3	M8 x 20 MM (Used with 1/4" Flange)
3	740-1006	3	Washer, Flat (M8)

# EXHAUST SYSTEM UPS VEHICLE APPLICATION

541-0163  
541-0266  
541-0267

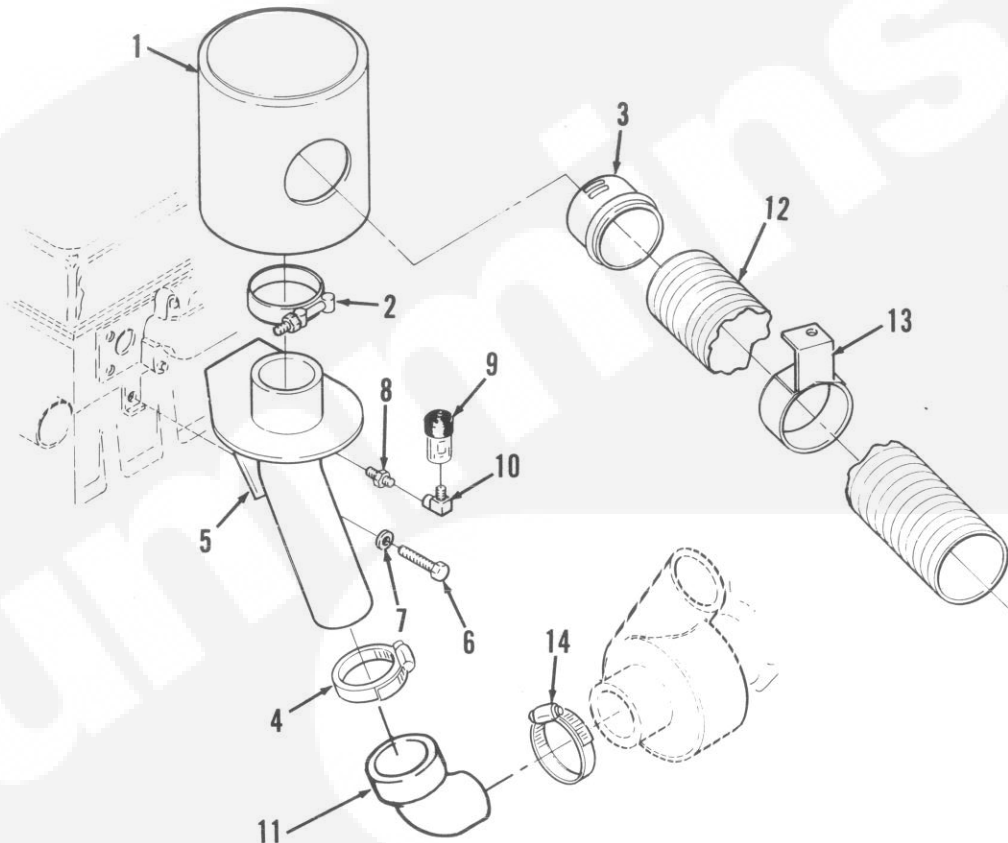


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	CLAMP, MUFFLER 155-2297	1	2-3/4" OD Pipe 2-1/2" OD Pipe
	155-2080	2	137" Wheelbase
	155-2080	3	153" and 175" Wheelbase
2	155-2234	1	Pipe, Exhaust
3	155-2235	1	Muffler
4	PIPE, TAIL 155-2298	1	137" Wheelbase
	155-2236	1	153" and 175" Wheelbase
5	PIPE, EXTENSION 155-2286	1	153" Wheelbase
	155-2241	1	175" Wheelbase
6	155-2242	1	Gasket, Ring
7	860-2066	3	Nut, Hex - Self-Locking (M8)
8	740-1006	3	Washer, Flat (M8)
9	520-2211	3	Stud



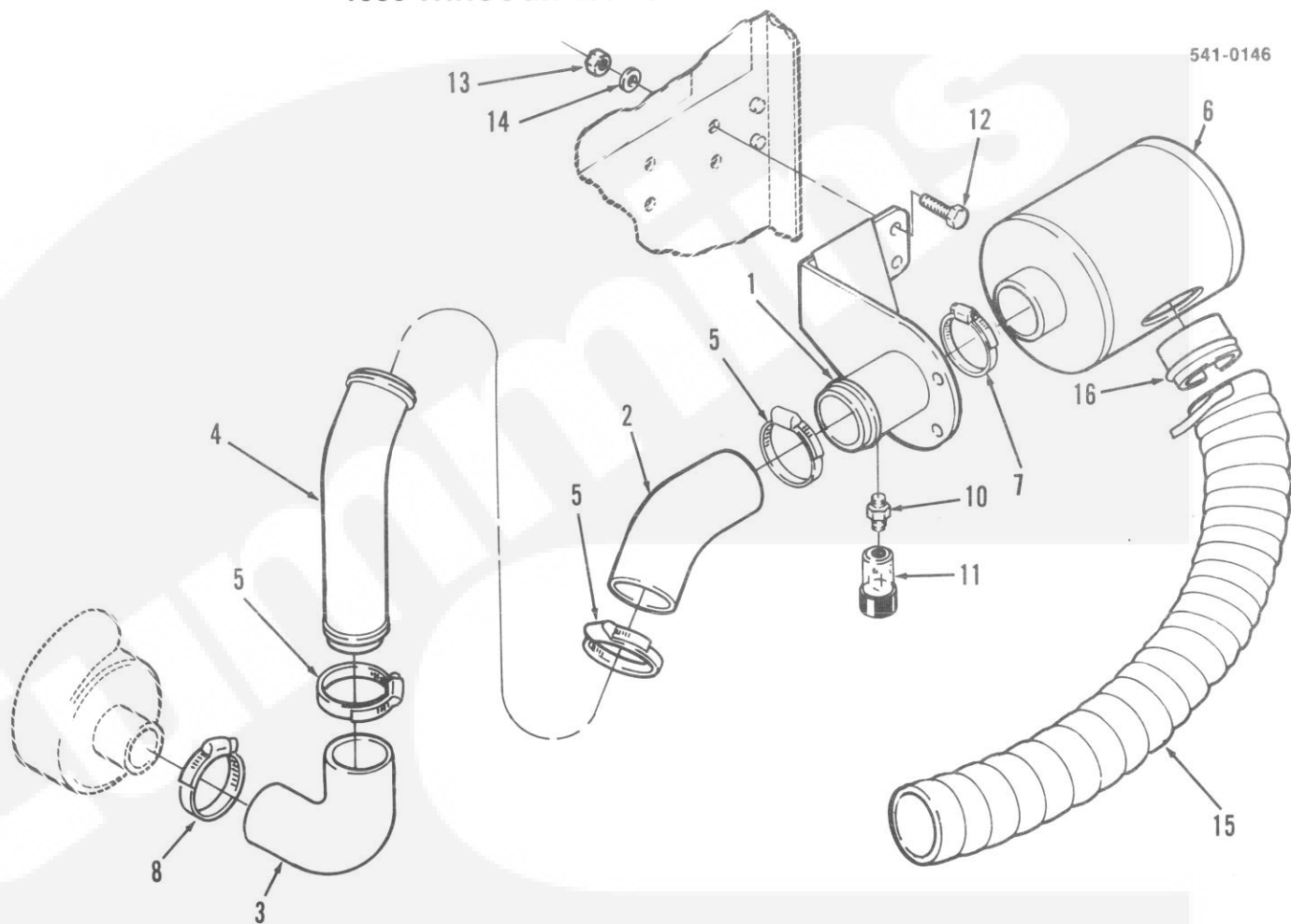
**AIR CLEANER  
UPS VEHICLE APPLICATION  
FORD P SERIES  
GENERAL MOTORS P SERIES WITH VACUUM BRAKES  
1984 THROUGH 1987 CERTIFIED ENGINES**

541-0144



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	140-2111	1	Cleaner, Air
2	503-0868	1	Clamp, Hose
3	140-2139	1	Adapter, Air Cleaner
4	503-1146	1	Clamp, Hose (SAE 52)
5	140-2109-01	1	Bracket, Mounting
6	718-1073	1	Screw, Cap - Hex Head (M12 x 25 MM)
7	740-1801	1	Washer, Flat (M12)
8	140-1260	1	Fitting, Indicator Mounting
9	140-1931	1	Indicator, Restriction
10	502-0969	1	Elbow, Street - 90° (1/8")
11	503-1512	1	Elbow, Air Inlet (45°)
12	140-2138	1	Duct, Air Inlet
13	140-2182-01	1	Bracket, Hose
14	503-1142	1	Clamp, Hose (SAE 36)

**AIR CLEANER**  
**UPS VEHICLE APPLICATION - GENERAL MOTORS**  
**P SERIES WITH "HYDRABOOST" BRAKES**  
**P SERIES P1000 PACKAGE CAR**  
**1985 THROUGH 1987 CERTIFIED ENGINES**

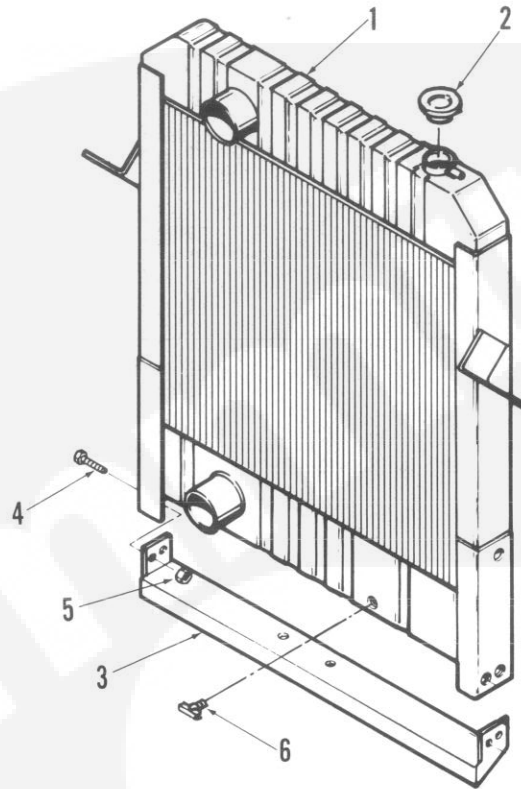


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	140-2117-01	1	Bracket, Mounting
2	503-1497	1	Elbow 45°
3	503-1520	1	Elbow 90°
4	140-2123-01	1	Tube, Inlet - Air
5	503-1146	3	Clamp, Hose
6	140-2111	1	Air Cleaner
7	503-0868	1	Clamp, Hose
8	503-1142	1	Clamp, Hose (SAE 36)
9	140-2143-01	1	Bracket, Tube - Air (Not Shown)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
10	140-1260	1	Fitting, Indicator Mounting
11	140-1931	1	Indicator, Restriction
12	718-1055	2	Screw, Cap - Hex Head (M10 x 30 MM)
13	750-1008	2	Nut, Hex (M10)
14	740-1008	2	Washer, Flat (M10)
15	140-2138	1	Duct, Inlet - Air
16	140-2139	1	Adapter, Cleaner - Air

**RADIATOR  
UPS VEHICLE APPLICATION  
GENERAL MOTORS AND FORD  
1984 THROUGH FEBRUARY, 1987 CERTIFIED ENGINES**

541-0118

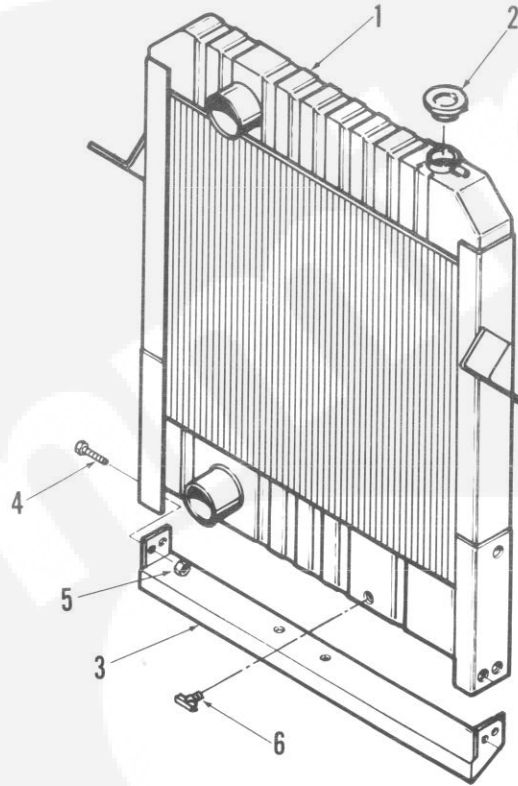


CS-1296-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-2854	1	Radiator
2	130-2760-01	1	Cap, Radiator
3	130-2848-01	1	Bracket, Radiator Support
4	821-0016	4	Screw, Flange - Locking Head (5/16-18 x 3/4")
5	870-0257	4	Nut, Flange - Locking Head (5/16-18)
6	504-0003	1	Valve, Drain

**RADIATOR**  
**UPS VEHICLE APPLICATION - GENERAL MOTORS P SERIES**  
**P1000 PACKAGE CAR**  
**1986 THROUGH FEBRUARY, 1987 CERTIFIED ENGINES**

541-0176

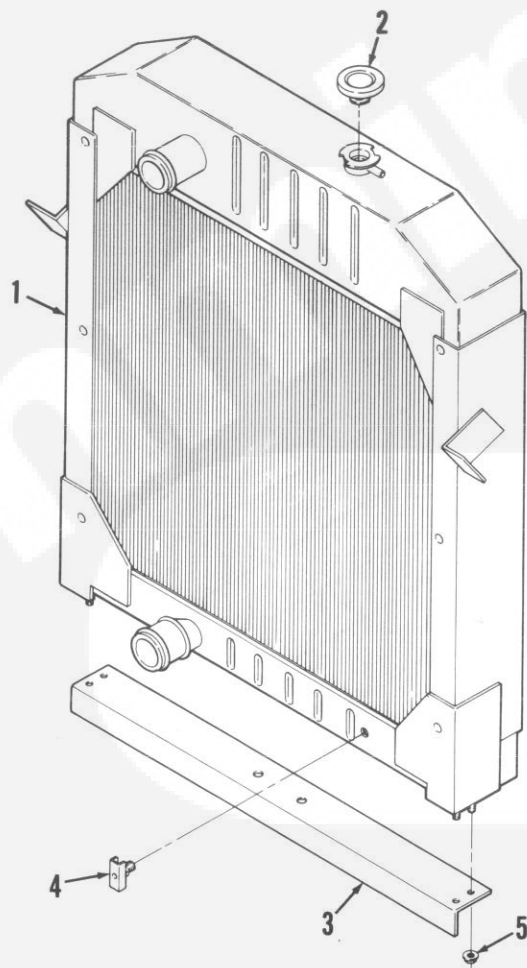


CS-1296-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-3074	1	Radiator	5	870-0257	4	Nut, Flange - Locking Head (5/16-18)
2	130-2760-01	1	Cap, Radiator	6	504-0003	1	Valve, Drain
3	130-2848-01	1	Bracket, Radiator Support				
4	821-0016	4	Screw, Flange - Locking Head (5/16-18 x 3/4")				

**RADIATOR**  
**UPS VEHICLE APPLICATION**  
**GENERAL MOTORS P SERIES**  
**GENERAL MOTORS P SERIES P1000 PACKAGE CAR**  
**BEGIN MARCH, 1987 CERTIFIED ENGINE**

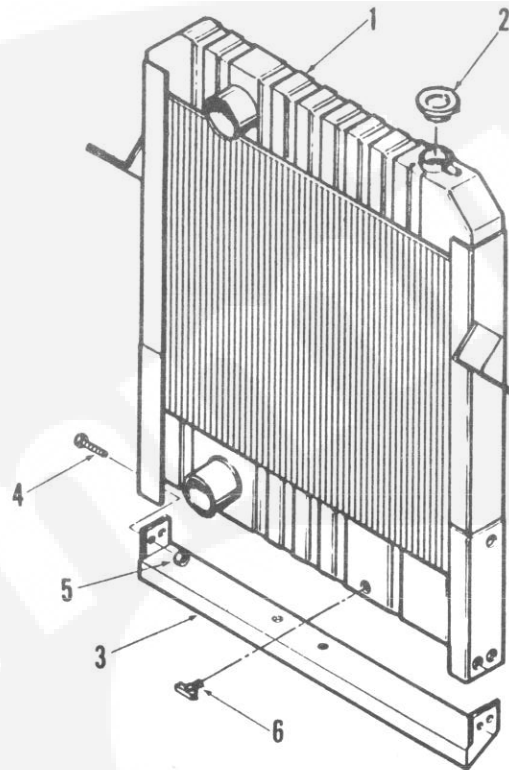
541-0250



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-3165	1	Radiator
2	130-2760	1	Cap, Radiator
3	130-3174-01	1	Bracket, Radiator Support
4	504-0003	1	Valve, Drain
5	870-0257	4	Nut, Flange - Locking Head (5/16-18)

**RADIATOR  
UPS VEHICLE APPLICATION  
FORD P SERIES  
BEGIN MARCH, 1987 CERTIFIED ENGINE**

541-0176

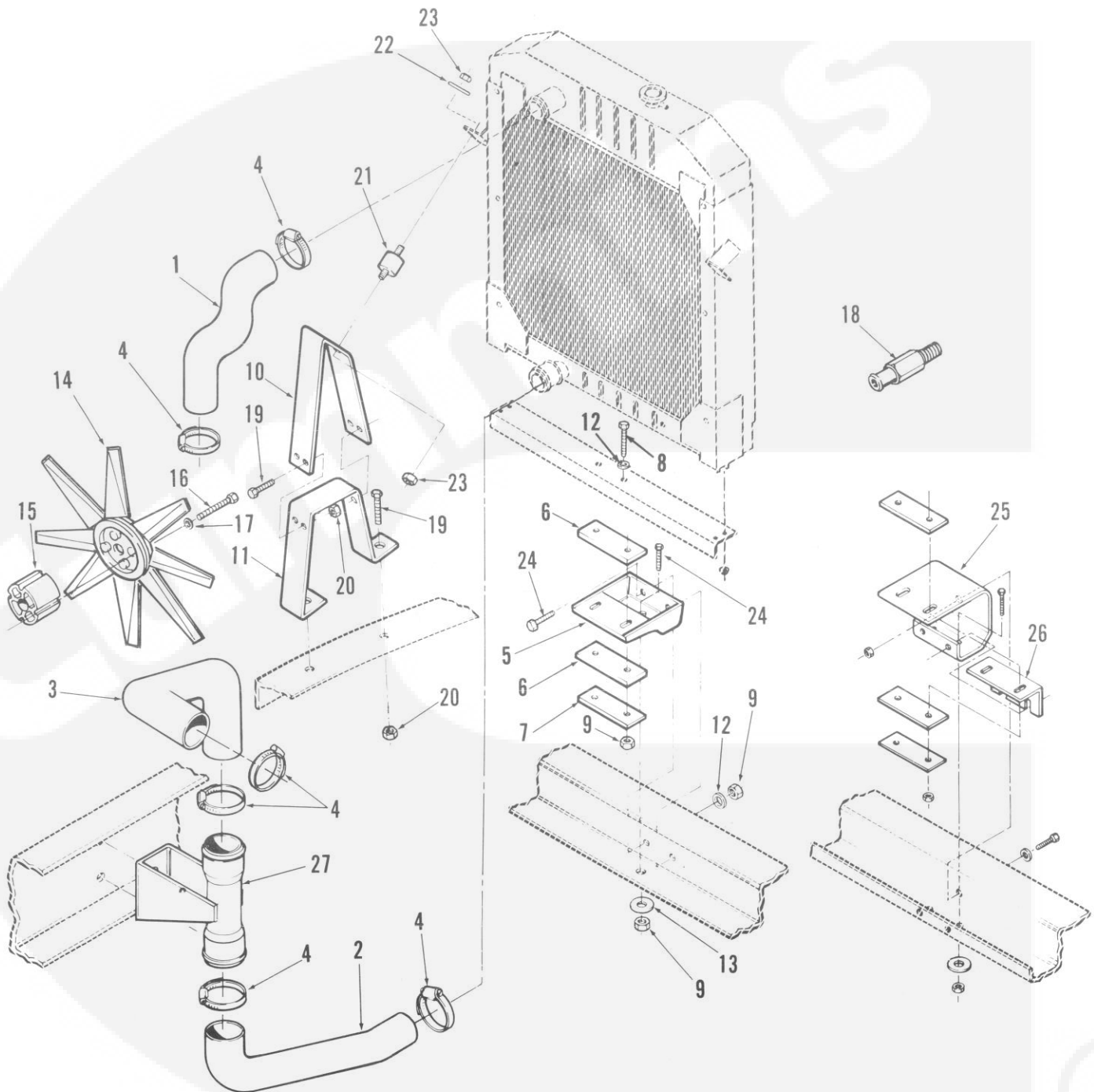


CS-1296-1

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-3074	1	Radiator
2	130-2760-01	1	Cap, Radiator
3	130-2848-01	1	Bracket, Radiator Support
4	821-0016	4	Screw, Flange - Locking Head (5/16-18 x 3/4")

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
5	870-0257	4	Nut, Flange - Locking Head (5/16-18)
6	504-0003	1	Valve, Drain

**COOLING SYSTEM  
UPS VEHICLE APPLICATION  
GENERAL MOTORS P SERIES  
1985 THROUGH 1987 CERTIFIED ENGINES**



CS-1296-1

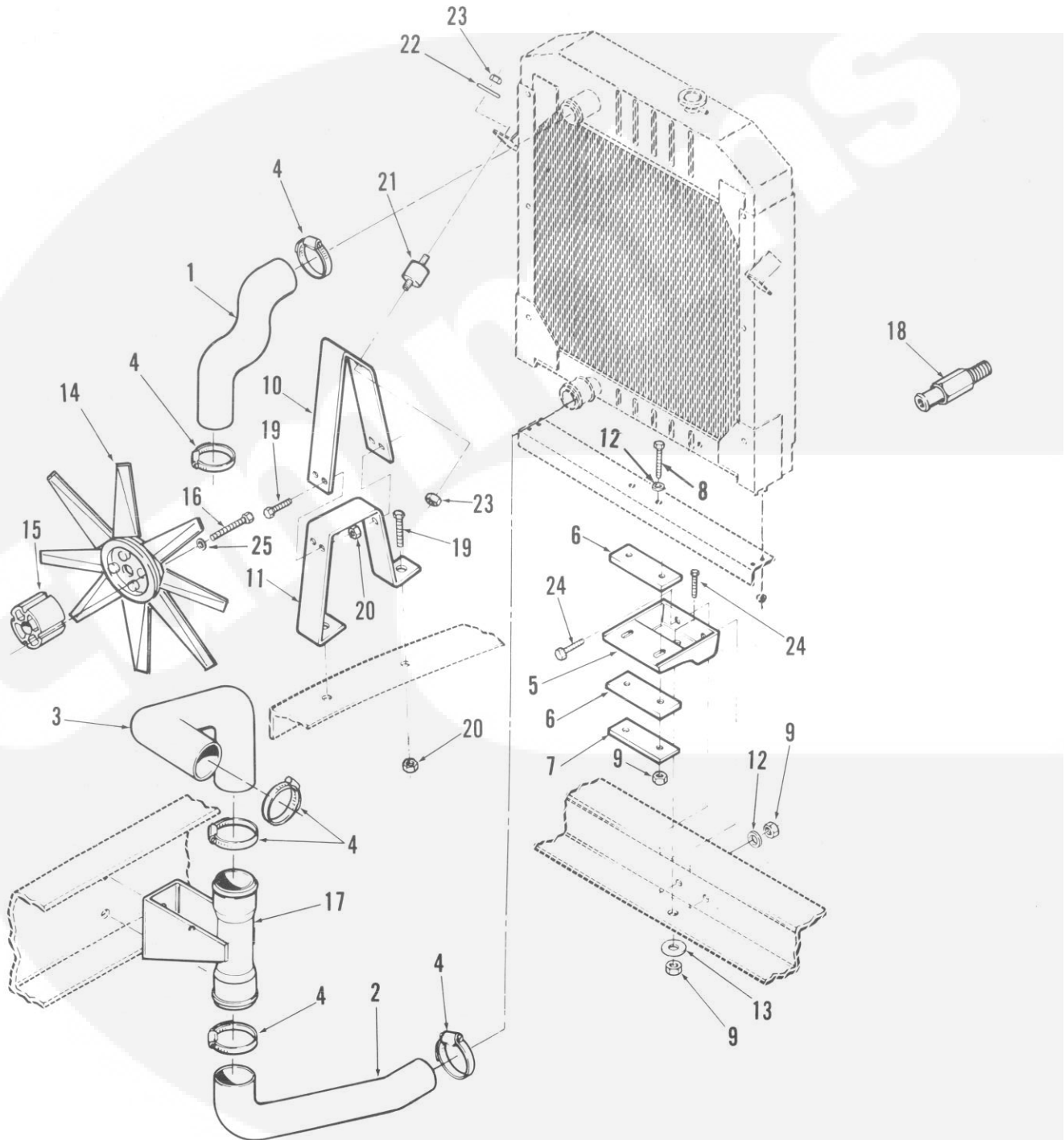
**COOLING SYSTEM  
UPS VEHICLE APPLICATION  
GENERAL MOTORS P SERIES  
1985 THROUGH 1987 CERTIFIED ENGINES**

541-0119  
541-0245  
541-0255

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	HOSE, RADIATOR - UPPER 503-1473	1	1985 Through February, 1987 Certified Engines	14	FAN 130-3150	1	1985 Through February, 1987 Certified Engines (5 Blade)
	503-1568	1	Begin March, 1987 Certified Engine		130-3076	1	Begin March, 1987 Certified Engine (8 Blade)
2	HOSE, RADIATOR - LOWER (Radiator to Bracket) 503-1474	1	1985 Through February, 1987 Certified Engines	15	SPACER, FAN 130-2699-01	1	1985 Through February, 1987 Certified Engines (32 MM)
	503-1569	1	Begin March, 1987 Certified Engine		130-2699-03	1	Begin March, 1987 Certified Engine (56 MM)
3	503-1475	1	Hose, Radiator - Lower (Bracket to Coolant Pump)	16	SCREW, CAP - HEX HEAD 718-1043	4	1985 Through February, 1987 Certified Engines (M8 x 55 MM)
4	503-1142	6	Clamp, Hose		718-1801	4	Begin March, 1987 Certified Engine (M8 x 85 MM)
5	130-2849-01	1	Bracket, Radiator Mounting - Begin 1979 General Motors Chassis	17	526-2108	4	Washer, Flat (M8) Begin March, 1987 Certified Engine
6	130-2930	2	Pad, Radiator Mounting	18	505-1343	2	Nipple - Heater Return
7	130-2931	1	Plate, Radiator Retainer	19	821-0030	12	Screw, Locking Head - Flange (3/8-16 x 1")
8	800-0075	2	Screw, Cap - Hex Head (7/16-14 x 2")	20	870-0281	12	Nut, Self-Locking - Flange (3/8-16)
9	NUT, SELF-LOCKING (7/16-14)		1985 Through February, 1987 Certified Engines	21	402-0388	2	Mount, Vibration
	870-0330	5	Prior to 1979 General Motors Chassis	22	526-0213	2	Washer, Flat (1" OD)
	870-0330	3	Begin 1979 General Motors Chassis	23	870-0257	4	Nut, Self-Locking - Flange (5/16-18)
			Begin March, 1987 Certified Engine	24	SCREW, CAP - HEX HEAD		1985 Through February, 1987 Certified Engines
	870-0330	7	Prior to 1979 General Motors Chassis		800-0072	5	(7/16-14 x 1-1/4") Prior to 1979 General Motors Chassis
	870-0330	5	Begin 1979 General Motors Chassis		800-0072	3	Begin 1979 General Motors Chassis
10	130-2936-01	2	Stabilizer, Radiator - Upper				Begin March, 1987 Certified Engine (7/16-14 x 1-1/2")
11	130-2929-01	2	Stabilizer, Radiator - Lower		800-0507	5	Prior to 1979 General Motors Chassis
12	740-1008	14	Washer, Flat (M10)		800-0507	3	Begin 1979 General Motors Chassis
13	WASHER, FLAT (2" OD) 526-0322	2	Prior to 1979 General Motors Chassis	25	130-2939-01	1	Support, Radiator - Prior to 1979 General Motors Chassis
	526-0322	1	Begin 1979 General Motors Chassis	26	130-2940-01	1	Bracket, Radiator Support - Prior to 1979 General Motors Chassis
				27	130-2925-01	1	Bracket, Lower Hose



**COOLING SYSTEM**  
**UPS VEHICLE APPLICATION - GENERAL MOTORS P SERIES**  
**P1000 PACKAGE CAR**  
**1986, 1987 CERTIFIED ENGINES**



CS-1296-1

**COOLING SYSTEM**  
**UPS VEHICLE APPLICATION - GENERAL MOTORS P SERIES**  
**P1000 PACKAGE CAR**  
**1986, 1987 CERTIFIED ENGINES**

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	HOSE, RADIATOR - UPPER 503-1473	1	1986 Through February, 1987 Certified Engine
	503-1568	1	Begin March, 1987 Certified Engine
2	HOSE, RADIATOR - LOWER (Radiator to Bracket) 503-1474	1	1986 Through February, 1987 Certified Engine
	503-1569	1	Begin March, 1987 Certified Engine
3	503-1475	1	Hose, Radiator - Lower (Bracket to Coolant Pump)
4	503-1142	6	Clamp, Hose
5	130-2849-01	1	Bracket, Radiator Mounting
6	130-2930	2	Pad, Radiator Mounting
7	130-2931	1	Plate, Radiator Retainer
8	800-0075	2	Screw, Cap - Hex Head (7/16-14 x 2")
9	NUT, SELF-LOCKING (7/16-14) 870-0330	8	1986 Through February, 1987 Certified Engine
	870-0330	5	Begin March, 1987 Certified Engine
10	130-2936-01	2	Stabilizer, Radiator - Upper
11	130-2929-01	2	Stabilizer, Radiator - Lower
12	740-1008	14	Washer, Flat (M10)
13	526-0322	2	Washer, Flat (2" OD)
14	130-3076	1	Fan (8 Blade)
15	130-2699-03	1	Spacer, Fan (56mm)
16	718-1801	4	Screw, Cap - Hex Head (M8 x 85mm)
17	130-2925-01	1	Bracket, Lower Hose
18	505-1343	2	Nipple - Heater Return
19	821-0030	12	Screw, Locking Head - Flange (3/8-16 x 1")
20	870-0281	12	Nut, Self-Locking - Flange (3/8-16)
21	402-0388	2	Mount, Vibration
22	526-0213	2	Washer, Flat (1" OD)
23	870-0257	4	Nut, Self-Locking (5/16-18)
24	SCREW, CAP - HEX HEAD (7/16-14 x 1-1/2") 800-0507	5	1986 Through February, 1987 Certified Engine
	800-0507	3	Begin March, 1987 Certified Engine
25	526-2108	4	Washer, Flat (M8)

541-0164  
541-0245

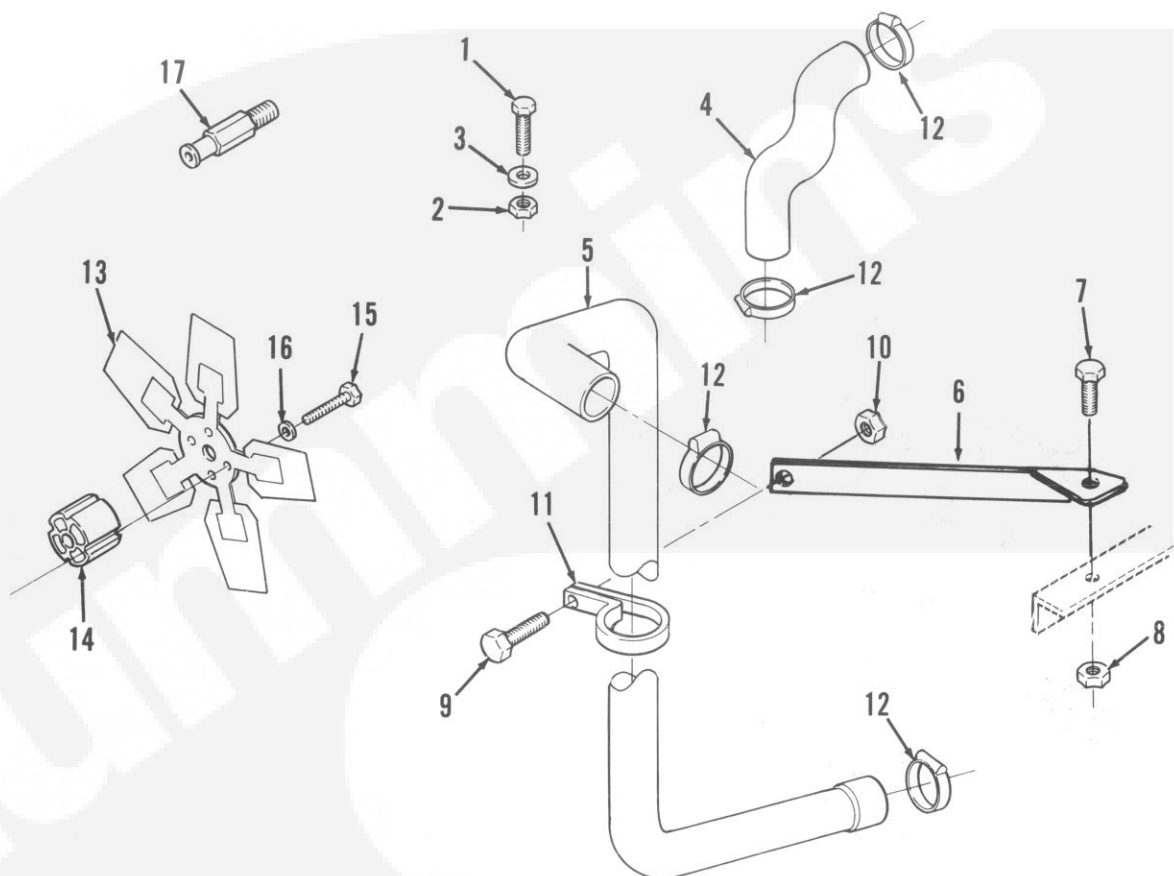
## COOLANT RECOVERY SYSTEM UPS VEHICLE APPLICATION

541-0079

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-2757	1	Frame, Coolant Tank
2	815-0335	4	Screw, Sheet Metal - Hex Head (#10 x 1/2")
3	130-2758	1	Tank
4	130-2759	1	Cap, Tank
5	503-1455	1	Hose (3/8" ID x 96") Radiator to Tank
6	503-1416	1	Hose (3/8" ID x 8") Tank Pickup
7	503-1445-03	3	Clamp, Hose
8	503-1472	1	Hose (1/2" ID x 36") Tank Overflow

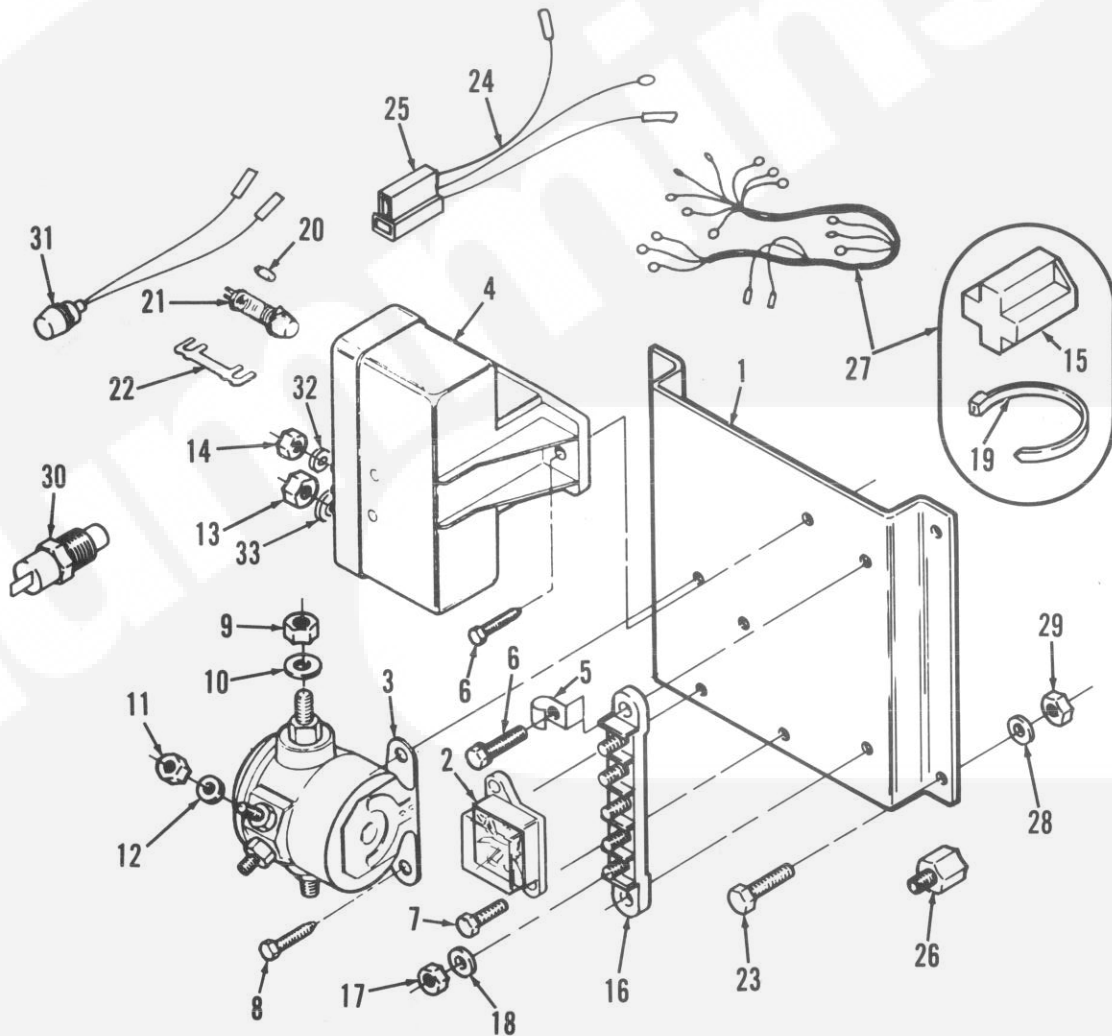
**COOLING SYSTEM**  
**UPS VEHICLE APPLICATION - FORD P SERIES**  
**1984 THROUGH 1987 CERTIFIED ENGINES**

541-0126



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	800-0075	2	Screw, Cap - Hex Head (7/16-14 x 2")
2	870-0330	2	Nut, Self-Locking (7/16-14)
3	526-0062	2	Washer, Flat (7/16")
4	503-1473	1	Hose, Radiator - Upper
5	503-1449	1	Hose, Radiator - Lower
6	130-2916-01	1	Bracket, Hose Support
7	821-0016	1	Screw, Flange - Locking Head (5/16-18 x 3/4")
8	870-0257	1	Nut, Flange - Self-Locking (5/16-18)
9	813-0102	1	Screw, Machine - Round Head (#10-32 x 3/4")
10	870-0131	1	Nut, Hex - With ET (#10-32)
11	130-2915	1	Strap, Hose
12	503-1142	4	Clamp, Hose (SAE 36)
13	130-3076	1	Fan
14	130-2699-01	1	Spacer, Fan (32 MM)
15	718-1044	4	Screw, Cap - Hex Head (M8 x 60 MM)
16	740-1006	4	Washer, Flat (M8)
17	505-1343	2	Nipple (Coolant Pump Mounted)

**ELECTRICAL SYSTEM**  
**UPS VEHICLE APPLICATION - GENERAL MOTORS P SERIES**  
**P1000 PACKAGE CAR**  
**1986, 1987 CERTIFIED ENGINES**



**ELECTRICAL SYSTEM**  
**UPS VEHICLE APPLICATION - GENERAL MOTORS P SERIES**  
**P1000 PACKAGE CAR**  
**1986, 1987 CERTIFIED ENGINES**

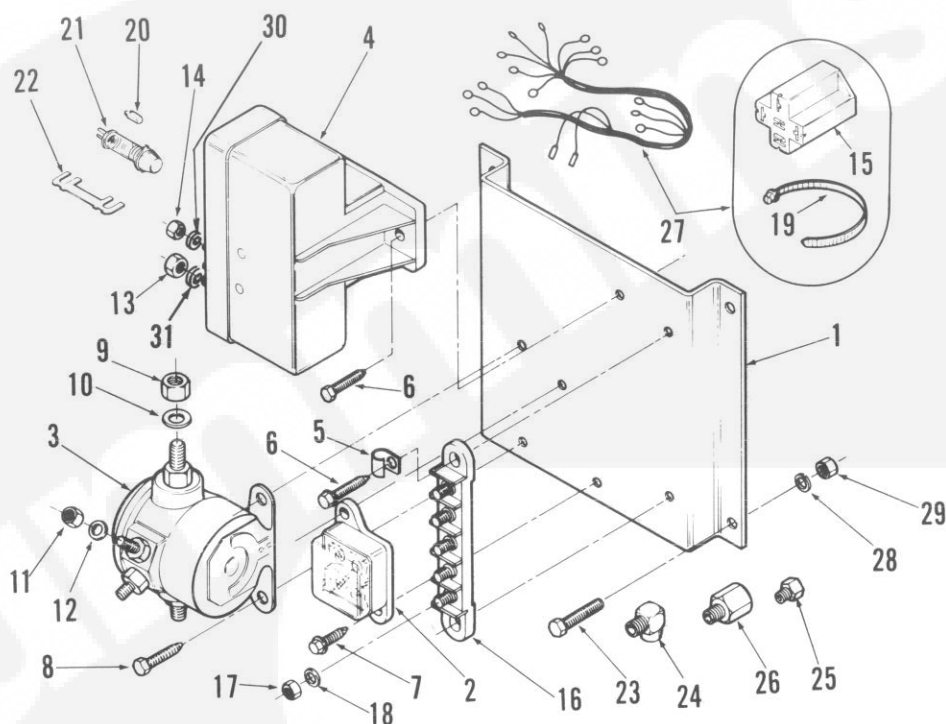
541-0180

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	301-9075	1	Bracket, Mounting
2	321-0263	1	Holder, Fuse (Fuse Not Included)
3	307-1166	1	Relay, Solenoid - Start
4	333-0245	1	Controller, Glow Plug
5	332-1554	1	Clamp, Loop
6	815-0139	3	Screw, Hex Head - Thread Cutting (1/4-20 x 3/4")
7	815-0518	2	Screw, Hex Washer Head Thread Cutting (6-32 x 5/8")
8	815-0315	2	Screw, Hex Head - Thread Cutting (1/4-20 x 1/2")
9	862-0015	2	Nut, Hex (5/16-18)
10	526-0022	2	Washer, Flat (5/16")
11	870-0053	2	Nut, Hex (10-32)
12	850-0030	2	Washer, Lock-Spring (#10)
13	750-1004	1	Nut, Hex (M6)
14	750-1002	1	Nut, Hex (M5)
15	307-1690	1	*Plug, Relay
16	332-2727	1	*Block, Terminal - Five Place
17	860-0011	5	*Nut, Hex (10-24)
18	850-0030	5	*Washer, Lock-Spring (#10)
19	332-0942	9	*Tie, Cable
20	322-0353	1	Lamp, Indicator
21	322-0354	1	Light, Indicator (Lamp Not Included)
22	321-0262-01	1	Fuse (80 Amp)
23	800-0007	4	Screw, Cap Hex - Head (1/4-20 x 1")
24	338-2103	1	Harness, Wiring (Includes Connector)
25	332-1393	1	Connector
26	505-0021	1	Bushing, Reducer (3/4" to 1/2")
27	HARNESS, WIRING		
	338-1846	1	Three Wire
	338-1901	1	Twelve Wire (Includes Parts Marked*)
28	850-0040	4	Washer, Lock
29	862-0001	4	Nut, Hex (1/4-20)
30	309-0552	1	Thermostat
31	322-0388	1	Light, Indicator
32	850-2005	1	Washer, Lock-Spring (M5)
33	850-2006	1	Washer, Lock-Spring (M6)

\* - Parts Included in 338-1901 Wiring Harness.

# **ELECTRICAL SYSTEM UPS VEHICLE APPLICATION**

541-0084



ES-1650

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	301-9075	1	Bracket, Mounting	21	322-0354	1	Light, Indicator (Lamp Not Included)
2	321-0263	1	Holder, Fuse (Fuse Not Included)	22	321-0262-01	1	Fuse (80 Amp)
3	307-1166	1	Relay, Start Solenoid	23	SCREW 815-0335	4	Hex Head - Sheet Metal (#10) (1984 Certified Engine)
4	333-0245	1	Controller, Glow Plug		800-0007	4	Hex Head - Cap (1/4-20 x 1") (Begin 1985 Certified Engine)
5	332-1554	1	Clamp, Loop	24	502-0969	1	Elbow, Street - 90° (1/8") (Oil Pressure Sender)
6	815-0139	3	Screw, Hex Head - Thread Cutting (1/4-20 x 3/4")	25	502-0946	1	Adapter, Reducing (1/4" to 1/8") (Oil Pressure Sender)
7	815-0518	2	Screw, Hex Washer Head - Thread Cutting (6-32 x 5/8")	26	505-0131	1	Bushing, Reducer (3/4" to 3/8") Water Temperature Sender
8	815-0315	2	Screw, Hex Head - Thread Cutting (1/4-20 x 1/2")	27	HARNES, WIRING 338-1846	1	Three Wire
9	862-0015	2	Nut, Hex (5/16-18)		338-1901	1	Twelve Wire (Includes Parts Marked *)
10	526-0022	2	Washer, Flat (5/16")	28	850-0040	4	Washer, Lock (1/4") (Begin 1985 Certified Engine)
11	870-0053	2	Nut, Hex (10-32)	29	862-0001	4	Nut, Hex (1/4-20) (Begin 1985 Certified Engine)
12	850-0030	2	Washer, Lock - Spring (#10)	30	850-2005	1	Washer, Lock-Spring (M5)
13	750-1004	1	Nut, Hex (M6)	31	850-2006	1	Washer, Lock-Spring (M6)
14	750-1002	1	Nut, Hex (M5)				
15	307-1690	1	*Plug, Relay				
16	332-2727	1	*Block, Terminal - Five Place				
17	860-0011	5	*Nut, Hex (10-24)				
18	850-0030	5	*Washer, Lock - Spring (#10)				
19	332-0942	9	*Tie, Cable				
20	322-0353	1	Lamp, Indicator				

\* - Parts Included in 338-1901 Wiring Harness.

**TRANSMISSION ADAPTER**  
**UPS VEHICLE APPLICATION - GENERAL MOTORS P SERIES**  
**P1000 PACKAGE CAR**  
**1986 CERTIFIED ENGINE**

541-0182

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	190-0680-XX	1	Adapter Assembly, Transmission (Includes Dowel Pins)
2	516-0218	2	Pin, Dowel
3	SCREW, CAP - HEX HEAD		
	720-1057	6	M10 x 40mm
	718-1061	2	M10 x 60mm
	718-1076	6	M12 x 40mm
4	WASHER, FLAT		
	740-1008	6	M10
	740-1801	6	M12

**FLYWHEEL**  
**UPS VEHICLE APPLICATION - GENERAL MOTORS P SERIES**  
**P1000 PACKAGE CAR**  
**1986 CERTIFIED ENGINE**

541-0182

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	104-1672	1	Flywheel Assembly (Includes Ring Gear and Bushing)
2	104-1666	1	Gear, Ring
3	190-0681	1	Bushing
4	104-1036	1	Plate, Washer
5	720-1059	6	Screw, Cap - Hex Head (M10 x 50mm)



## LABELS

### UPS VEHICLE APPLICATION

541-0085  
541-0128

PART NO.	QTY. USED	PART DESCRIPTION
LABEL		
98-5118	1	"Diesel Fuel Only" (4-1/4" x 2")
98-5119	1	"Diesel Fuel Only" (5" x 7/8")
		"Diesel Engine Starting Instructions"
98-5121	1	1984 Certified Engine - Ford P Series
98-5498	1	1985 Certified Engine
98-5390	1	"Rotating Fan, etc."
98-5391	1	"Water in Fuel, etc."
98-5392	1	"Ether Starting Aids, etc."
98-5394	1	"Starting Circuit, etc."
98-5402	1	"Fuel/Water Separator"
98-5408	1	"Normal Engine Temperature"
98-5499	1	"Cold Start Advance"
		- 1985 Certified Engine
98-5679	1	"Glow Plug Light"

## LABELS

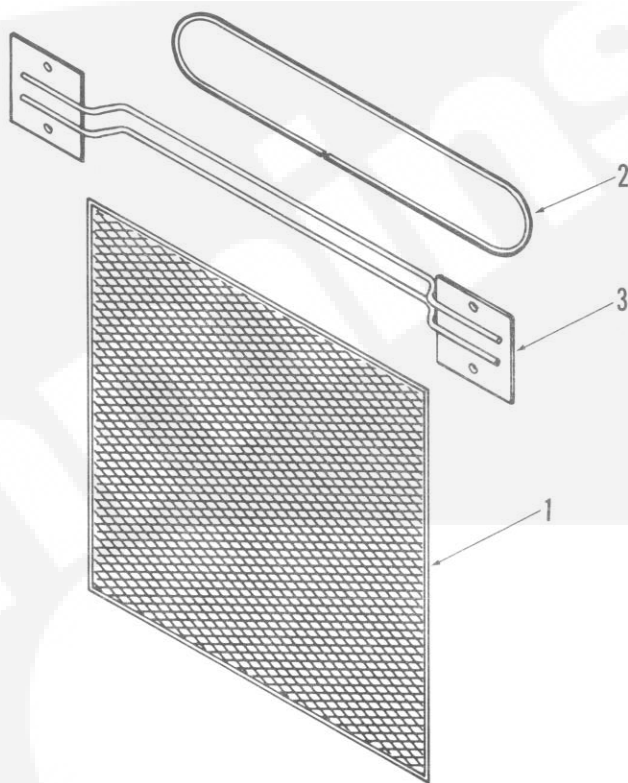
### UPS VEHICLE APPLICATION - GENERAL MOTORS P SERIES P1000 PACKAGE CAR 1986, 1987 CERTIFIED ENGINES

541-0179

PART NO.	QTY. USED	PART DESCRIPTION
LABEL		
98-5118	1	"Diesel Fuel Only" (4-1/4" x 2")
98-5119	1	"Diesel Fuel Only" (5" x 7/8")
98-5498	1	"Diesel Engine Starting Instructions"
98-5390	1	"Rotating Fan, etc."
98-5391	1	"Water in Fuel, etc."
98-5392	1	"Ether Starting Aids, etc."
98-5394	1	"Starting Circuit, etc."
98-5402	1	"Fuel/Water Separator"
98-5408	1	"Normal Engine Temperature"
98-5499	1	"Cold Start Advance"
98-5679	1	"Glow Plug Light"

# GRILLE UPS VEHICLE APPLICATION

541-0121

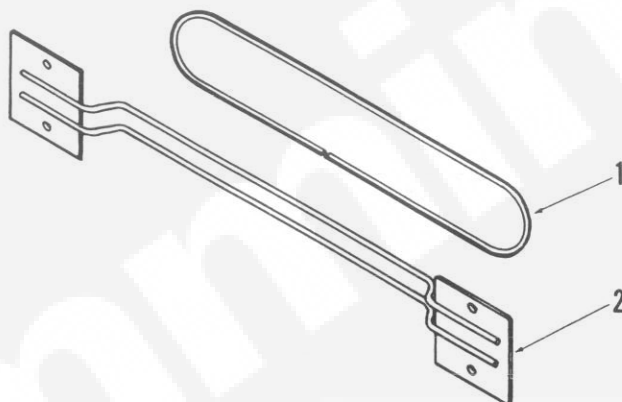


M-1654

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-2917	1	Grille, Radiator
2	508-1036	1	Edging (60")
3	130-2919-01	1	Grille (Hood)

**GRILLE**  
**UPS VEHICLE APPLICATION - GENERAL MOTORS P SERIES**  
**P1000 PACKAGE CAR**  
**1986, 1987 CERTIFIED ENGINES**

541-0178



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	508-1036	1	Edging (60")
2	130-2919-01	1	Grille (Hood)

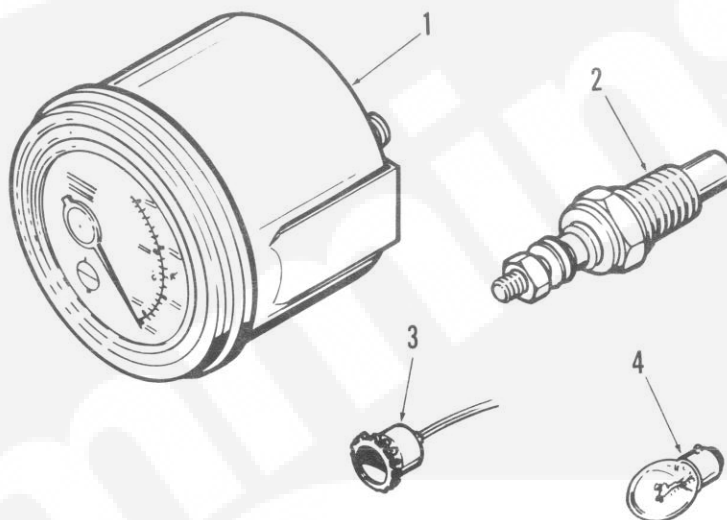
**STARTER AND STARTER COMPONENTS**  
**UPS VEHICLE APPLICATION - GENERAL MOTORS P SERIES**  
**P1000 PACKAGE CAR**  
**1986 CERTIFIED ENGINE**

541-0182

**NOTE:** For replacement Starter or Starter Components refer to page  
40 (Starter) or 41 (Components).

**TEMPERATURE GAUGE  
UPS VEHICLE APPLICATION - FORD P SERIES  
1984 THROUGH 1987 CERTIFIED ENGINES**

541-0129



M-1653

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	193-0245	1	Gauge, Water Temperature
2	193-0246	1	Sender, Water Temperature
3	322-0072	1	Socket, Gauge Light
4	322-0004	1	Lamp, Gauge Light

## MODEL SPECIFICATION NUMBER TO OPTION CODE TABLE

This table lists the applicable Sales Option Code numbers below the specification number, letter and year of manufacture. Using the specification number and letter from your engine nameplate, determine the Sales Option Codes that apply to your engine.

SPEC NO. YEAR	10128 MS 1983	10156 B 1984	10156 C 1984	10181 B 1984	10181 C 1984	10191 B 1984	10193 B 1984	10208 B 1984	10208 C 1984	10212 B 1984	10212 C 1984	10234 C 1986	10235 C 1986	10312 C 1986	10368 B 1985	10369 B 1985	10370 B 1985	10377 C 1986	10378 C 1986
OPTION	11AB	11AB	11AB	11AB	11AB	11AB	11AB	11AB	11AB	11AB	11AB	11AB	11AB	11AB	11AB	11AB	11AB	11AB	11AB
	13AB	13AU	13AU	13AU	13AU	13AU	13AU	13AU	13AU	13AU	13AU	13AU	13AU	13AU	13AZ	13AZ	13AZ	13AZ	13AZ
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	31AG	31AB	33AE	31AG	29AP	29AP	33AE	31AG	33AE	31AG	23CC	23CC	23CC	33AE	33AE	33AE	23CC	23CC	23CC
	33AE	31AG	35AJ	33AR	31AG	31AG	35AJ	33AE	35AJ	33AR	31AG	31AG	31AB	35AJ	35AJ	35AJ	31AG	31AG	31AG
	35AJ	33AE		35AJ	33AA	33AA		35AJ		35AJ	33AR	33AR	33AR	31AG				33AR	33AR
		35AJ			33AR	33AR						35AJ	35AJ	33AE				35AJ	35AJ
						35AJ	35AJ							35AJ					

\*No sales codes assigned—contact factory

SPEC NO. YEAR	10380 B 1984	10380 C 1984	10417 C 1986	10417 D 1986	10434 C 1986	10434 D 1986	10472 D 1986	10473 D 1986	10474 D 1987	10483 C 1986	10506 C 1986	10507 C 1986	10514 C 1986	10566 D 1987	10567 D 1987	10568 D 1987	10569 D 1987	10570 D 1987	10571 D 1987
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NUMBERS	23AL	23AL	23AL	23AL	23AL	23AL	23AB	23AB	23AB	23AB	23AB	23AB	23AB	23AB	23AB	23AB	23AB	23AB	23AB
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	33AR	33AR	23CP	23CP	23CP	23CP	27AT	27AT	27AT	23CC	23CC	23CC	23CC	27AU	27AU	27AU	27AU	27AU	27AU
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SPEC NO.	10614	10615	10616	10617	10618	10618	10619	10619	10620	10621	10622	10623	10624	10654	10655	10657	10667	10679
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	23AS	23AS	23AS	23AS	23CC	23CC	23CC	23CC	23AS	23AS	23AS	23AS	23AS	23AA	23AA	23CC	23CC	23CC
	23CC	23CC	23CC	23CC	23CP	23CP	23CP	23CP	23CC	23CC	23CC	23CC	23CC	23CC	23CC	23CP	23CP	23CP
	27AU	27AU	27AU	27AU	27AT	27AT	27AT	27AT	27AU	27AU	27AT	27AT	27AT	23DS	23DT	27AT	27AT	27AT
	29BB	29BC	29BB	29BC	29BA	29BA	29BA	29BA	29BB	29BC	29BA	29BA	29BA	27AU	27AU	29BA	29BA	29BA
	31AG	31AG	31AG	31AG	31AG	31AG	31AG	31AG	31AG	31AG	31AG	31AG	31AG	29BB	29BB	31AG	31AG	31AG
	33AA	33AA	33AA	33AA	33AA	33AA	33AA	33AA	33AA	33AA	33AA	33AA	33AA	31AG	31AG	33AA	33AA	33AA
	33AR	33AR	33AR	33AR	33AE	33AE	33AE	33AE	33AR	33AR	33AR	33AR	33AR	33AA	33AR	33AE	33AE	33AE
	35AJ	35AJ	35AJ	35AJ	35AJ	35AJ	35AJ	35AJ	35AJ	35AJ	35AJ	35AJ	35AJ	33AR	35AJ	35AJ	35AJ	35AJ
														35AJ	41AM	41AL	41AL	41AL
														35BU	41AN			
														41AM	45DU			
														41AN				
														45DU				



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